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FISHERIES STATISTICS OF JAPAN 1984

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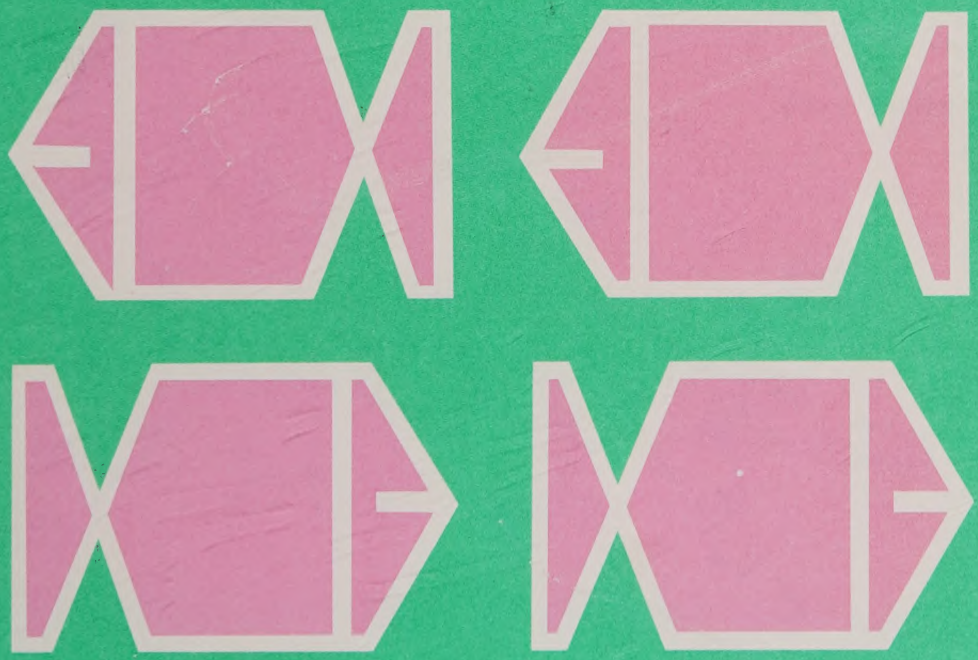
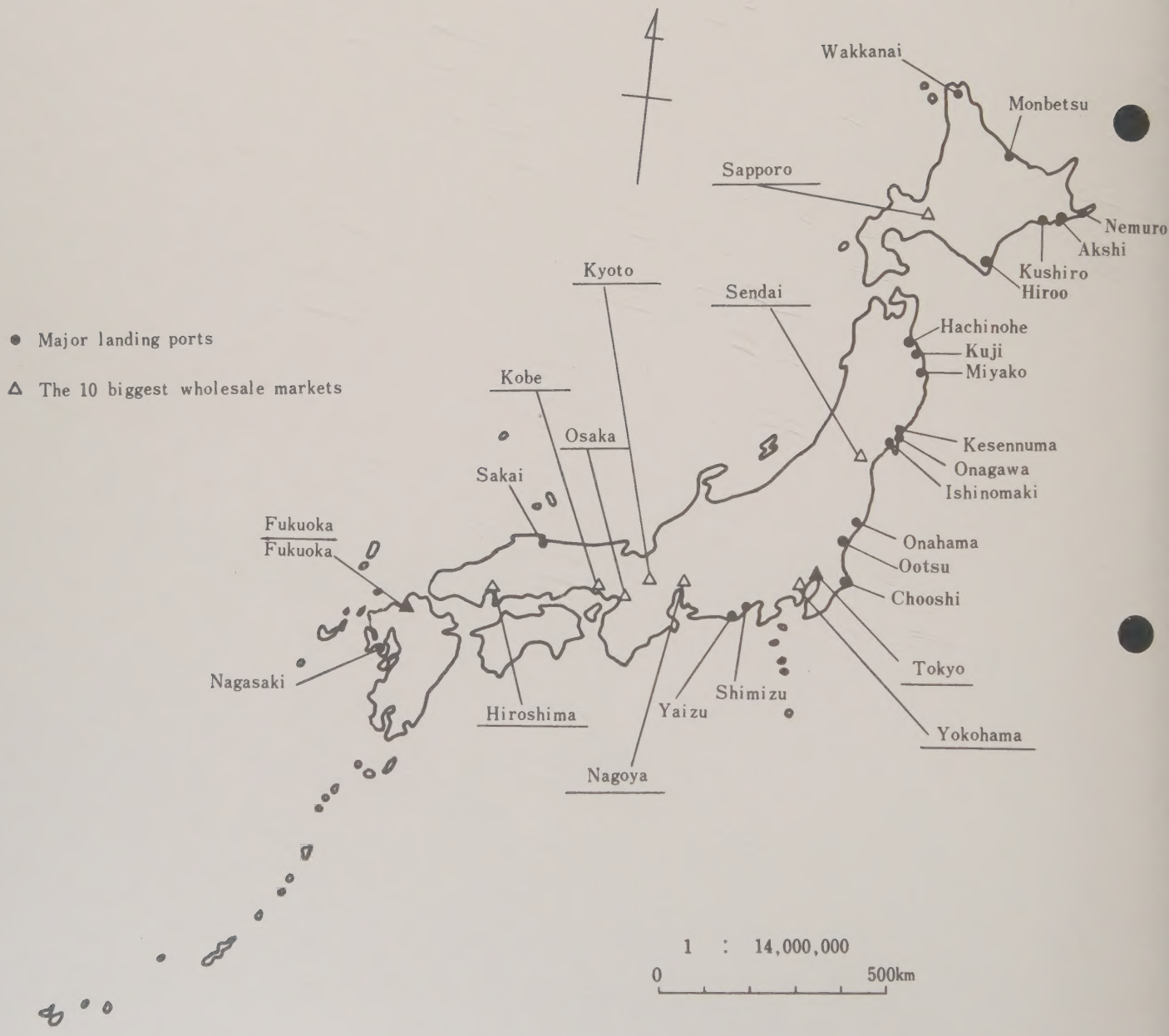


STATISTICS AND INFORMATION DEPARTMENT
MINISTRY OF AGRICULTURE, FORESTRY AND FISHERIES
GOVERNMENT OF JAPAN

THE 20 BIGGEST LANDING PORTS AND THE 10 BIGGEST WHOLESALE MARKETS IN JAPAN



FISHERIES STATISTICS OF JAPAN

1984

STATISTICS AND INFORMATION DEPARTMENT
MINISTRY OF AGRICULTURE, FORESTRY AND FISHERIES

GOVERNMENT OF JAPAN

FOREWORD

This bulletin "Fisheries Statistics of Japan" contains results of major statistical surveys on fishery structure production, marketing and economy situation which are conducted by the Government of Japan (Statistics and Information Department, The Ministry of Agriculture, Forestry and Fisheries), and it has been published yearly since 1963.

Recently, Japanese fisheries lie under very severe circumstances; The restrictions of fishing operation caused by establishment of the "200-mile fishing zone" and stagnant fish price.

In order to keep stable supply of fishery products as important protein resources in nation's nutrition under such circumstances, Japanese Government promotes cultivation and effective utilization of fishery resources in the water around Japan and makes an every effort to keep overseas fishing ground through diplomacy and international cooperation in the field of fisheries.

Lastly, I hope this bulletin will benefit our readers to understand the current situation of Japanese fishery and also contribute to fishery development of the world.

March, 1986

Takeshi Watanabe

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Director,
Statistics and Information Department
Ministry of Agriculture, Forestry and Fisheries
Government of Japan

CONTENTS

EXPLANATORY NOTES

STATISTICAL CHART

Page

I FISHERY PRODUCTION

1 Total Catch by Type of Fisheries, 1974-1984 2
2 Catch by Type of Fishery, 1984 2
3 Catch by Major Fish, 1984 3
4 Catch by Major Fish, 1974-1984 4
5 Yield of Marine Cultures, 1974-1984 4
6 Catch of Major Inland Water Fish, 1974-1984 5
7 Yield of Major Inland Water Culture Fish, 1974-1984 5
8 Catch of the World by Countries, 1974-1983 5

II STRUCTURE OF FISHERY PRODUCTION

1 Number of Marine Fishery Establishments, 1984 6
2 Number of Marine Fishery Workers, 1984 6
3 Number of Fishing Boats, 1974-1984 7
4 Number of Fishing Boats, 1984 7

III MARKETING OF FISHERY PRODUCTS

1 Supply of Fishery Products, 1974-1984 8
2 Price Index of Fishery Products, 1979-1984 8
3 Fishery Processing Products, 1974-1984 9
4 Volume Transacted by Group of Commodity in Six Large Central Wholesale Markets, 1974-1984 10
5 Exports and Imports of Fishery Products, 1974-1984 10
6 Imports of Fishery Products, 1984 11
7 Exports of Fishery Products, 1984 11

IV ECONOMY OF FISHERY ESTABLISHMENTS

1 Economy of Fishery Household, 1974-1984 12
2 Economy of Middle and Small Size Fishery Enterprise, 1974-1984 12

STATISTICAL TABLE

Page

I FISHERY PRODUCTION

1 Summary of Catch by Fishery Sector, 1974-1984 14

2 Summary of Catch by Species Group, 1974-1984 14

3 Catch in Quantity and Value by Fishery Type, 1983-1984 15

4 Catch in Quantity and Value by Species, 1983-1984 16

5 Catch of Major Species by Fishery Type, 1980-1984 18

6 Index Number of Fishery Production by Type of Fisheries, 1980-1984 22

7 Index Number of Fishery Production by Species, 1980-1984 .. 23

II STRUCTURE OF FISHERY PRODUCTION

1 Number of Marine Fishery stablishments, 1980-1984 24

2 Number of Marine Fishery Workers, 1980-1984 24

3 Number of Fishing Boats, 1980-1984 25

4 Gross Tonnages of Fishing Boats, 1980-1984 25

III MARKETING OF FISHERY PRODUCT

1 Quantity and Price of Landings by Commodity at Fish Markets in Producing Areas, 1984 26

2 Quantity and Price of Arrivals by Commodity at Tokyo Central Wholesale Markets, 1984 28

3 Prices of Major Fishery Products by Steps of Distribution in Tokyo, 1984 29

4 Processed Fishery Products, 1980-1984 30

5 Value of Imports and Exports by Commodity, 1974-1984 32

6 Value of Imports and Exports by Country, 1974-1984 34

7 Value of Imports and Exports of Fishery Products, 1984 36

8 Food Balance Sheet on Fishery Products, 1980-1984 38

9 Average Consumption in Quantity of Fishery Products per Household, 1980-1984 40

10 Average Consumption in Value of Fishery Products per Household, 1980-1984 42

IV ECONOMY OF FISHERY ESTABLISHMENTS

Page

1 National Average of Fisheries Household Economy, 1980-1984 44

2 National Average of Small and Middle Size Fishery Enterprise Economy, 1980-1984 45

REFERENCE TABLES

1 Catch by Country of the World, 1979-1983 48

2 Catch by Species of the World, 1979-1983 49

APPENDIX

Illastration for Types of Fisheries 52

EXPLANATORY NOTES

1 Sources of statistics

Table No. I-1 ∿ 7, II-1,2	Statistics and Information Department
III-1 ∿ 4	Ministry of Agriculture, Forestry and
IV-1, 2	Fisheries
Table No. II-3, 4	Fisheries Agency Ministry of Agriculture, Forestry and Fisheries
Table No. III-5 ∿ 7	Bureau of Customs, Ministry of Finance
Reference Table 1, 2	F. A. O.

2 Period of inquisition

As a principle, the statistics in this bulletin are inquired by the calendar year but the figures of the whaling in the Antarctic Ocean are given for the "Whaling year".

3 Symbols

The following symbols are used in this publication:

[0] means "Less than the unit amount"

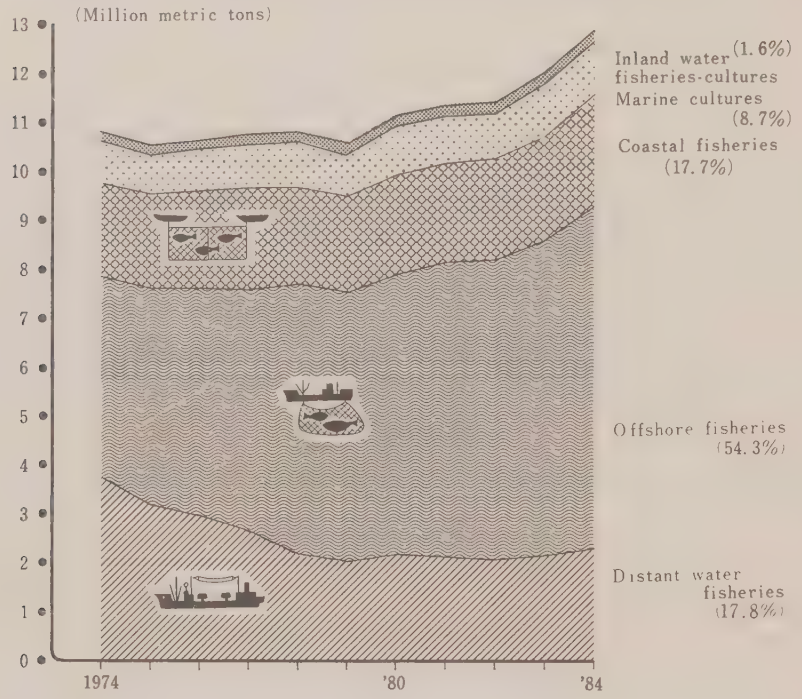
[---] means "Unknown or not available"

[-] means "No record"

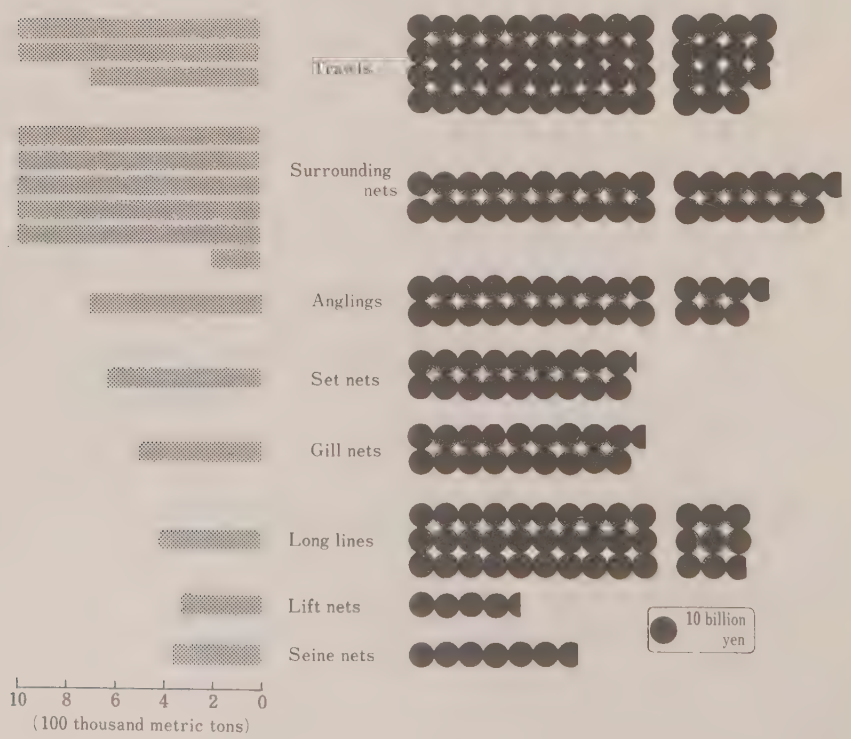
[Δ] means "Minus"

STATISTICAL CHARTS

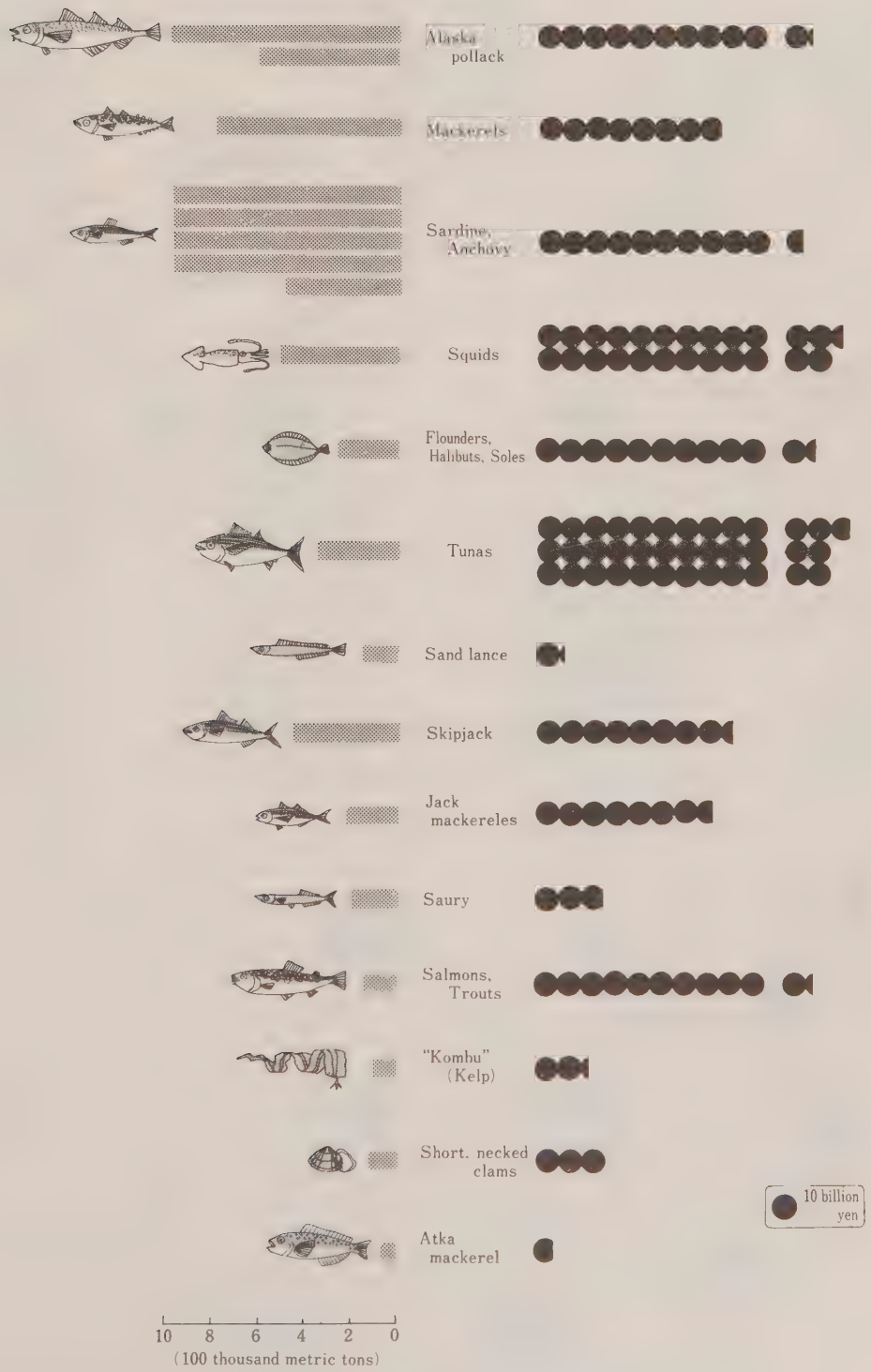
1 Total Catch by Type of Fisheries, 1974～1984



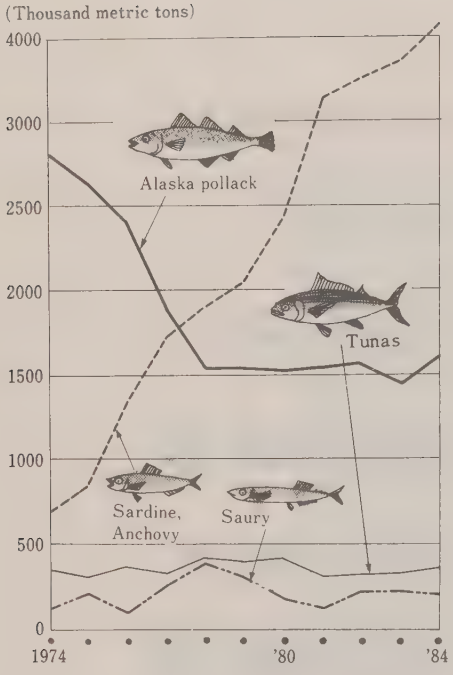
2 Catch by Type of Fishery, 1984

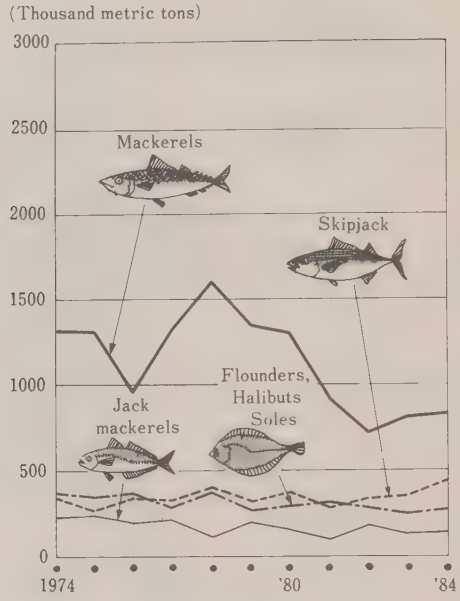


3 Catch by Major Fish, 1984

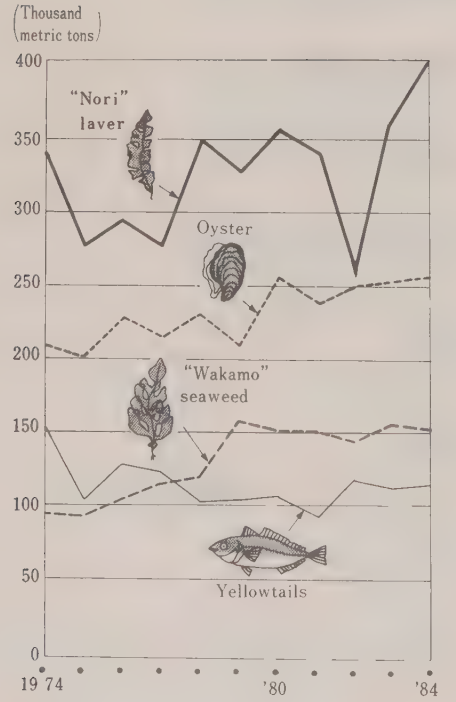


4 Catch by Major Fish, 1974～1984

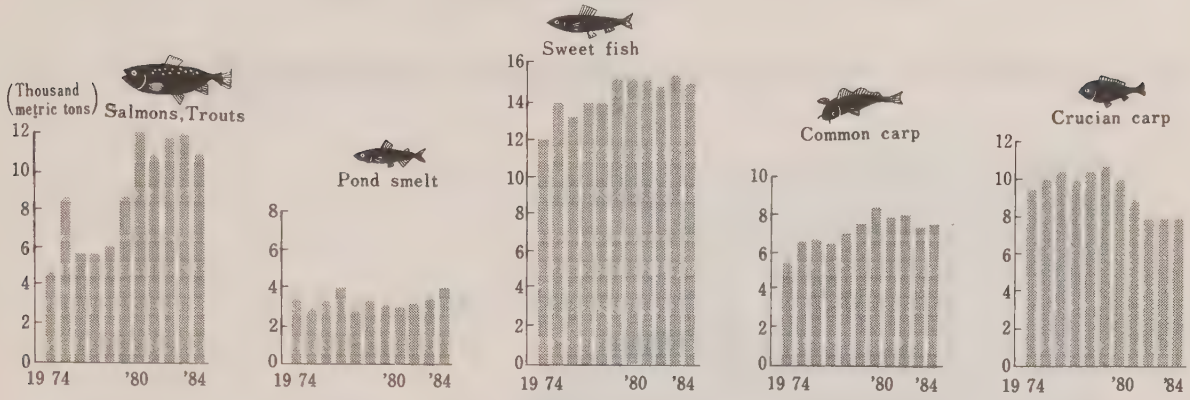




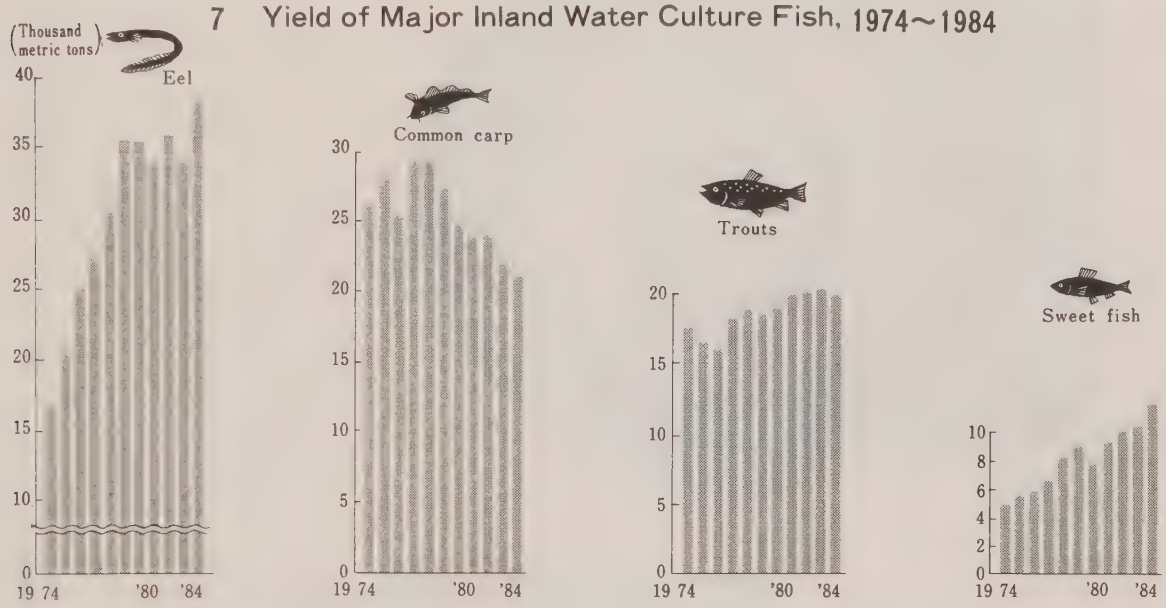
5 Yield of Marine Cultures, 1974～1984



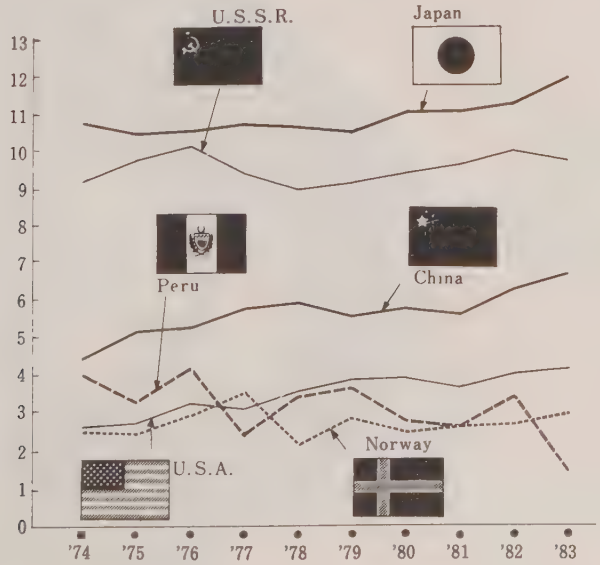
6 Catch of Major Inland Water Fish, 1974～1984



7 Yield of Major Inland Water Culture Fish, 1974～1984

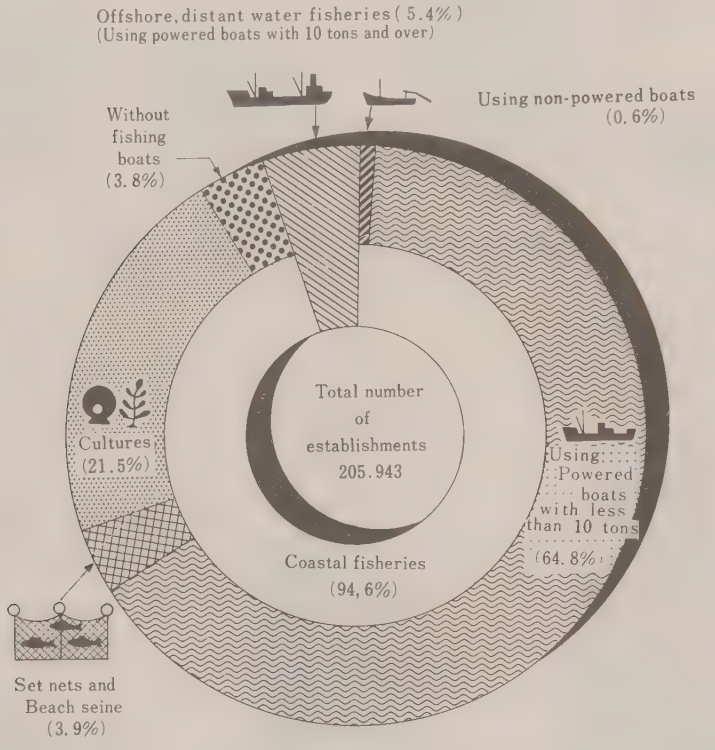


8 Catch of the World by Countries, 1974～1983

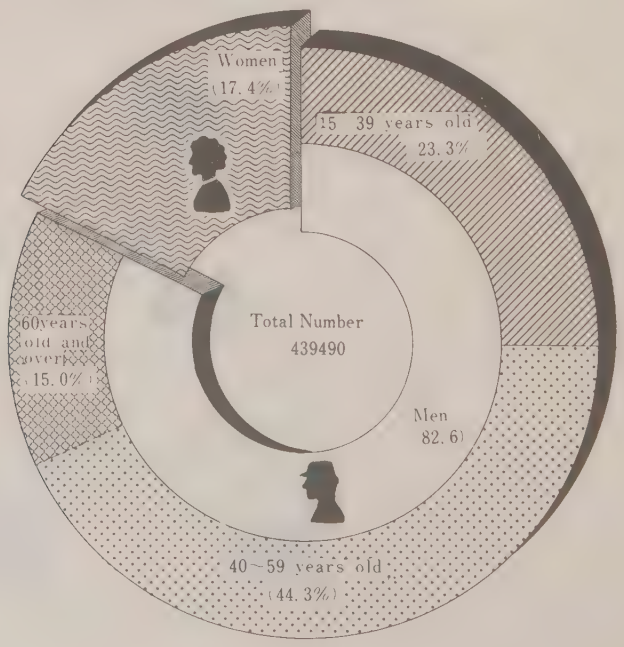


II STRUCTURE OF FISHERY PRODUCTION

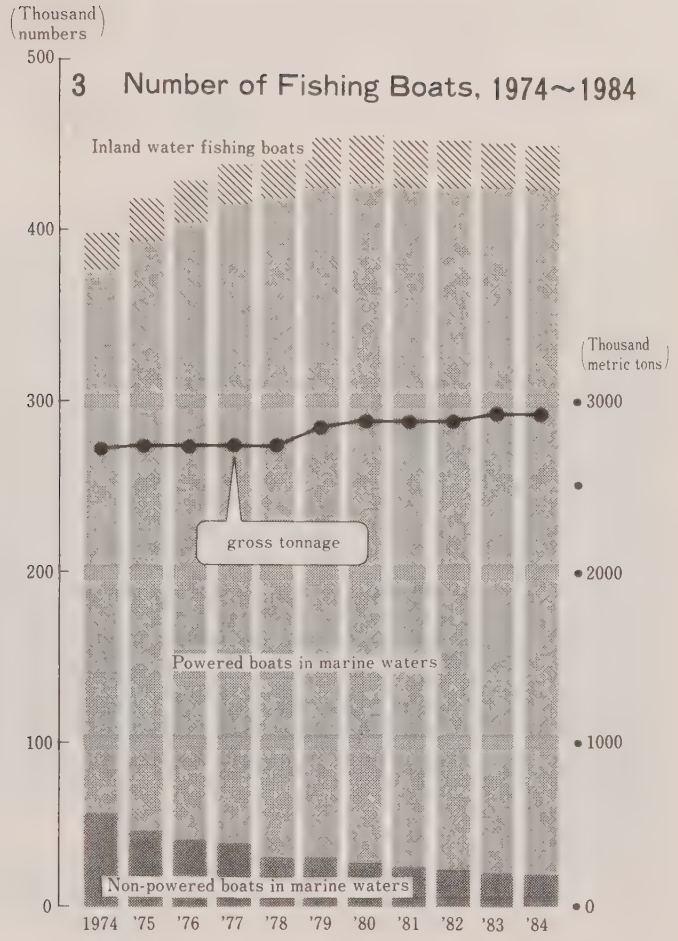
1 Number of Marine Fishery Establishments, 1984


Offshore, distant water fisheries (5.4%)
(Using powered boats with 10 tons and over)
Without fishing boats (3.8%)
Using non-powered boats (0.6%)
Total number of establishments 205.943
Cultures (21.5%)
Using Powered boats with less than 10 tons (64.8%)
Coastal fisheries (94.6%)
Set nets and Beach seine (3.9%)

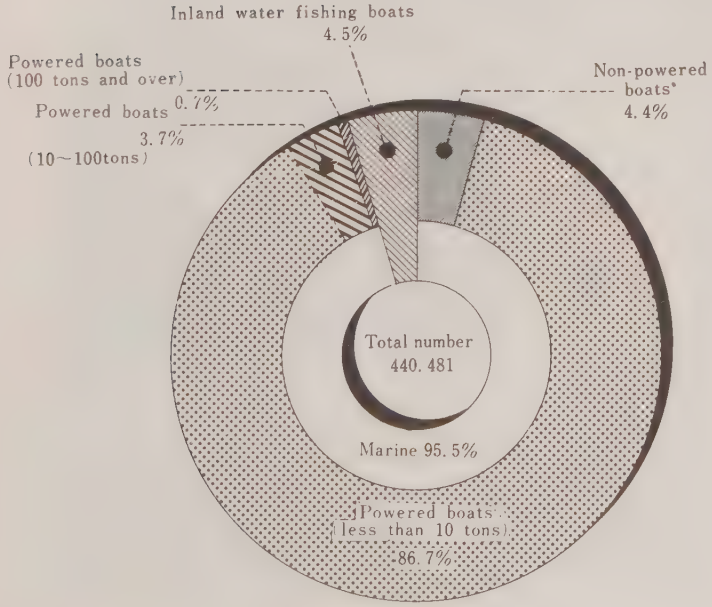
2 Number of Marine Fishery Workers, 1984



3 Number of Fishing Boats, 1974～1984

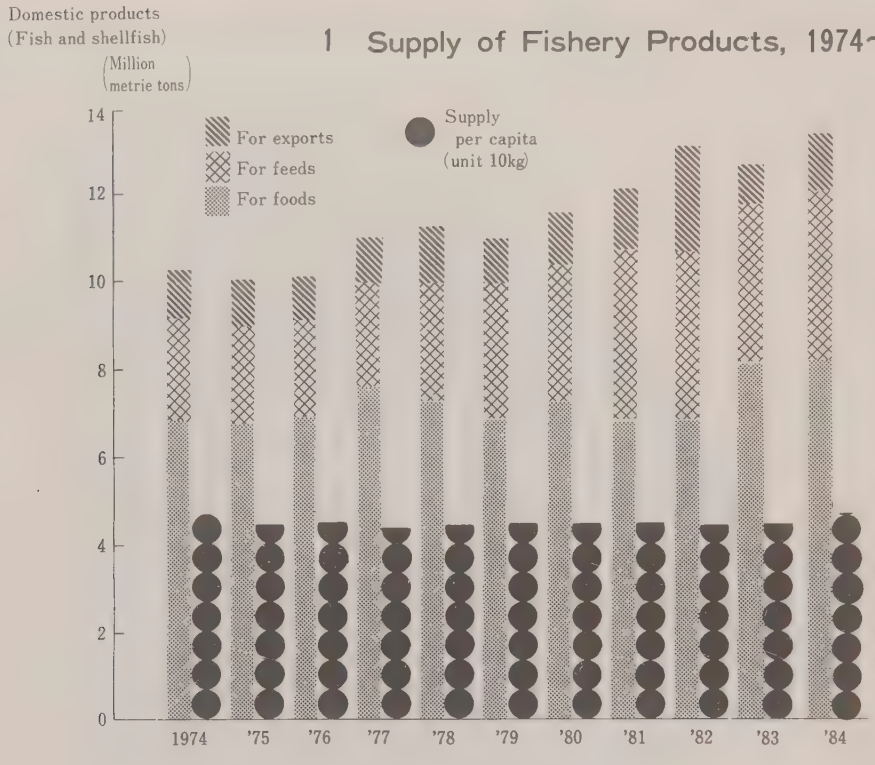


4 Number of Fishing Boats, 1984

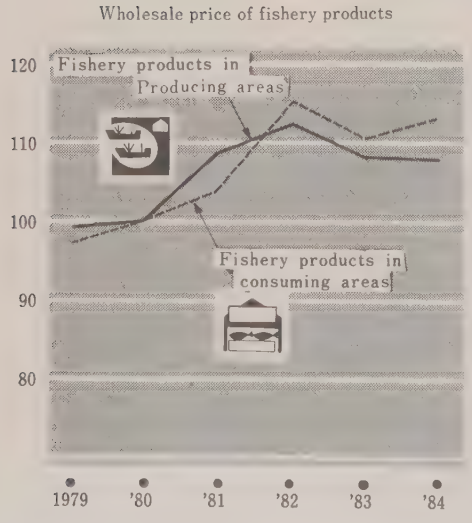


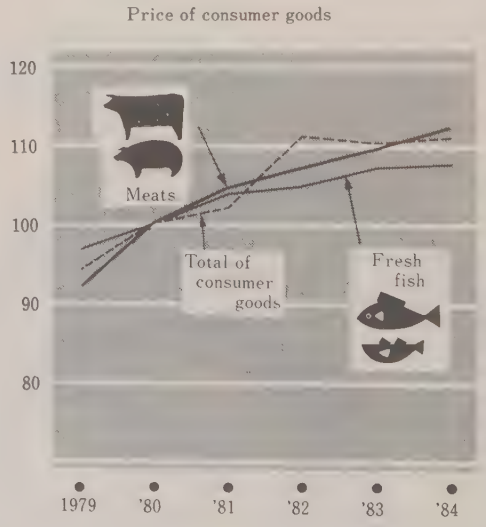
III MARKETING OF FISHERY PRODUCTS

1 Supply of Fishery Products, 1974～1984

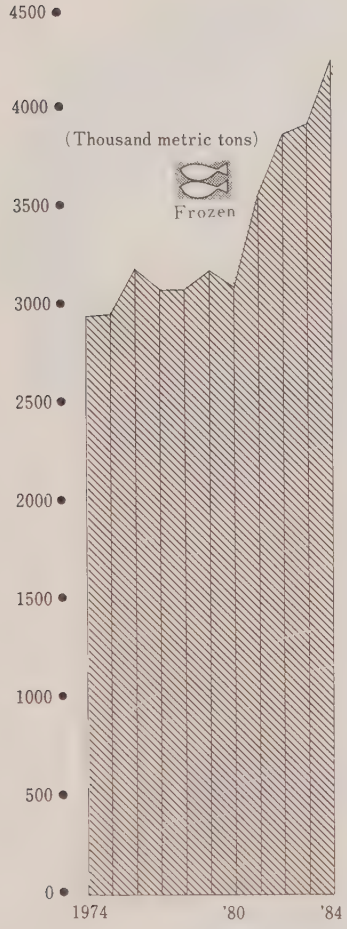


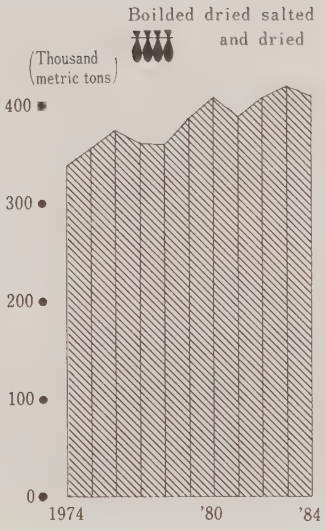
2 Price Index of Fishery Products 1979～1984 (1980=100)

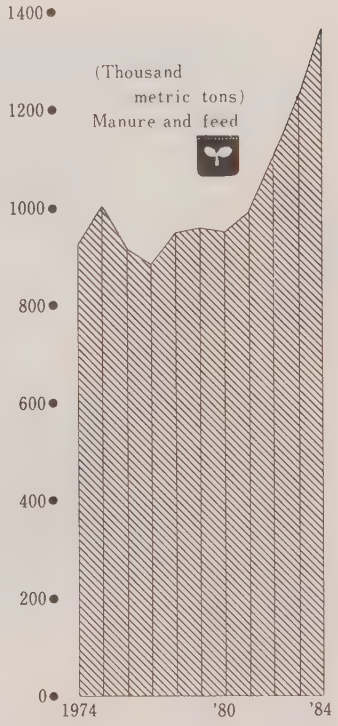


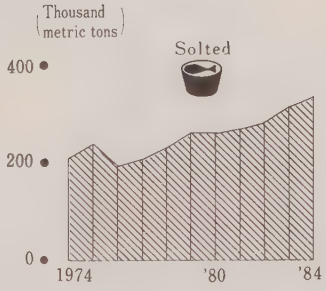


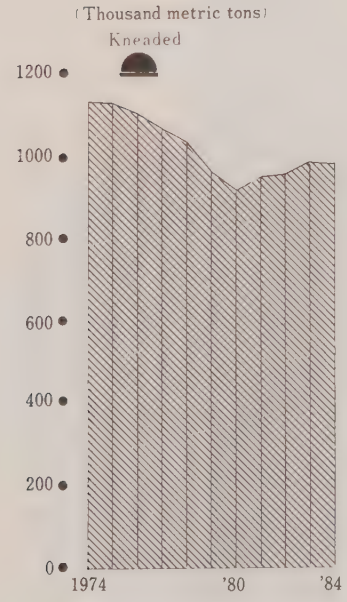
3 Fishery Processing Products, 1974～1984

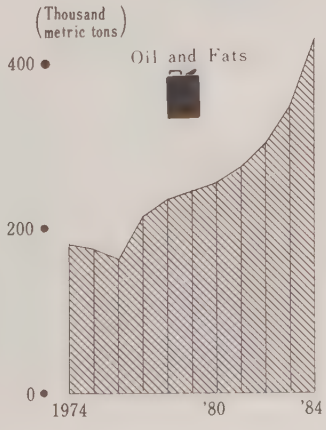


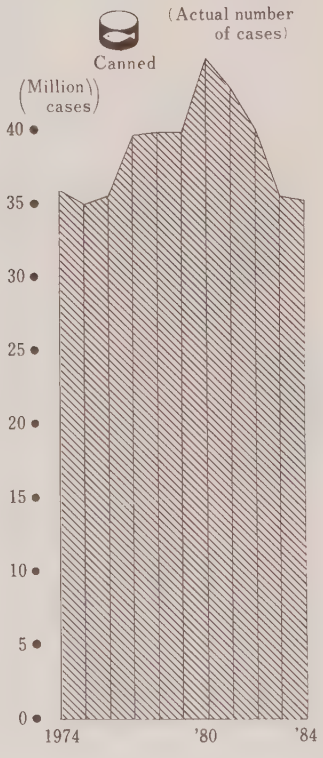




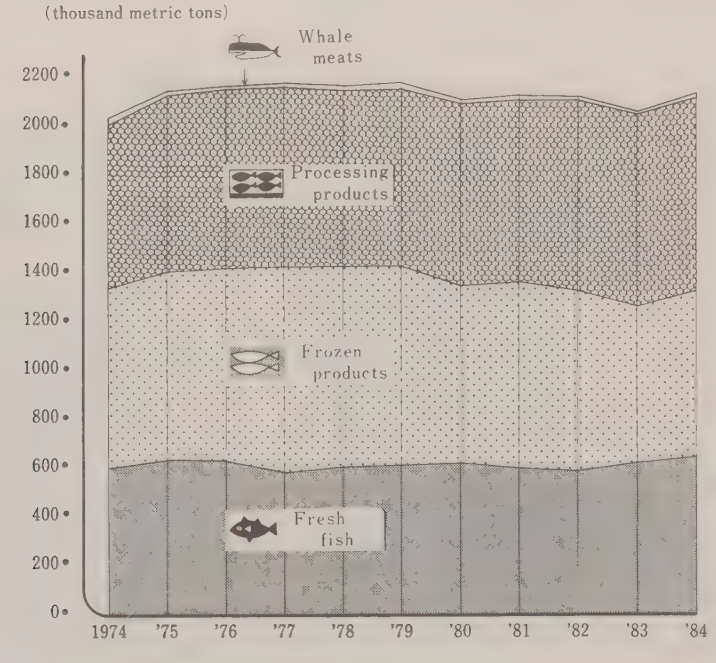




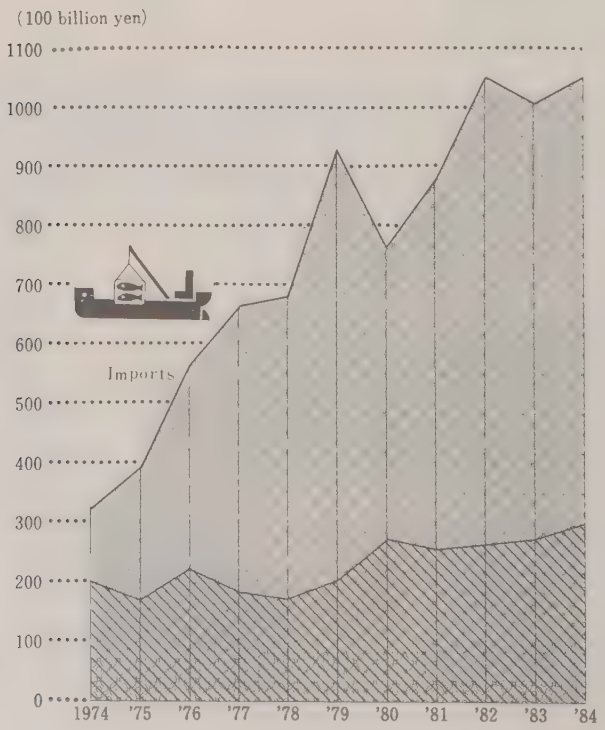




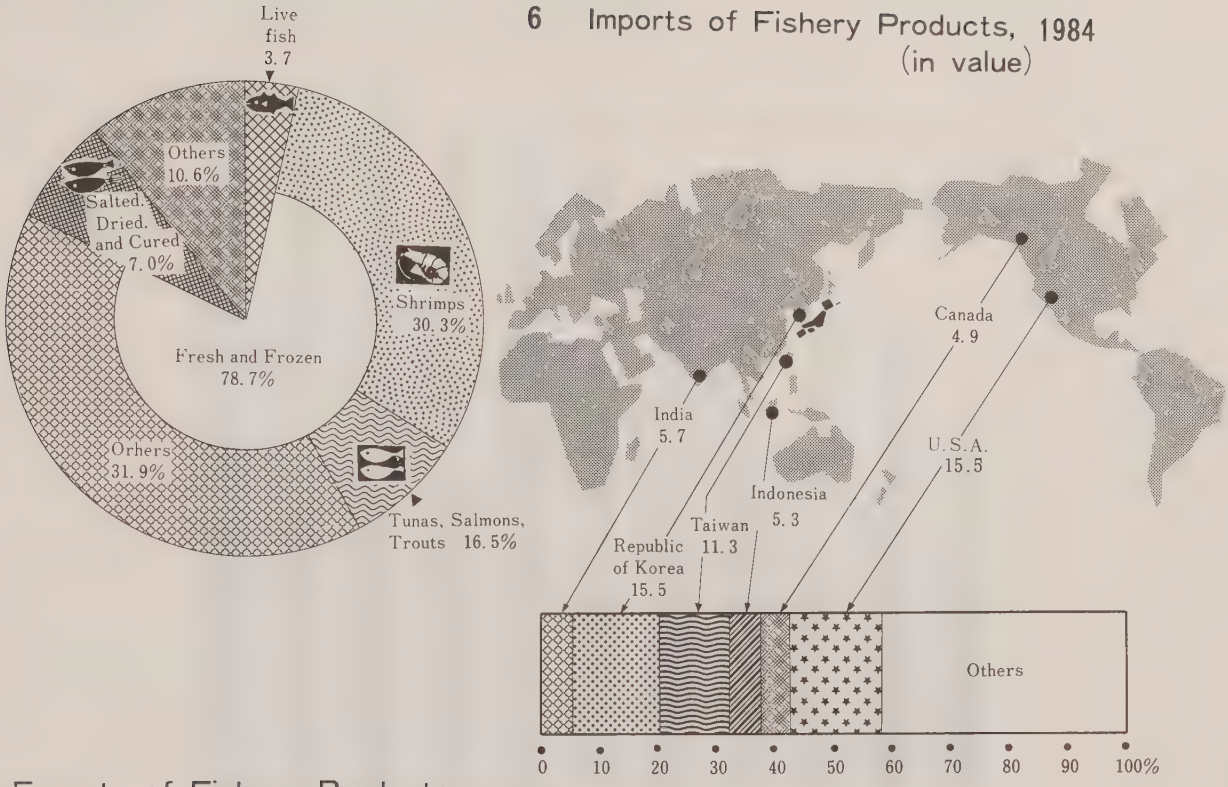
4 Volume Transacted by Group of Commodity in Six Large Central Wholesale Markets, 1974～1984



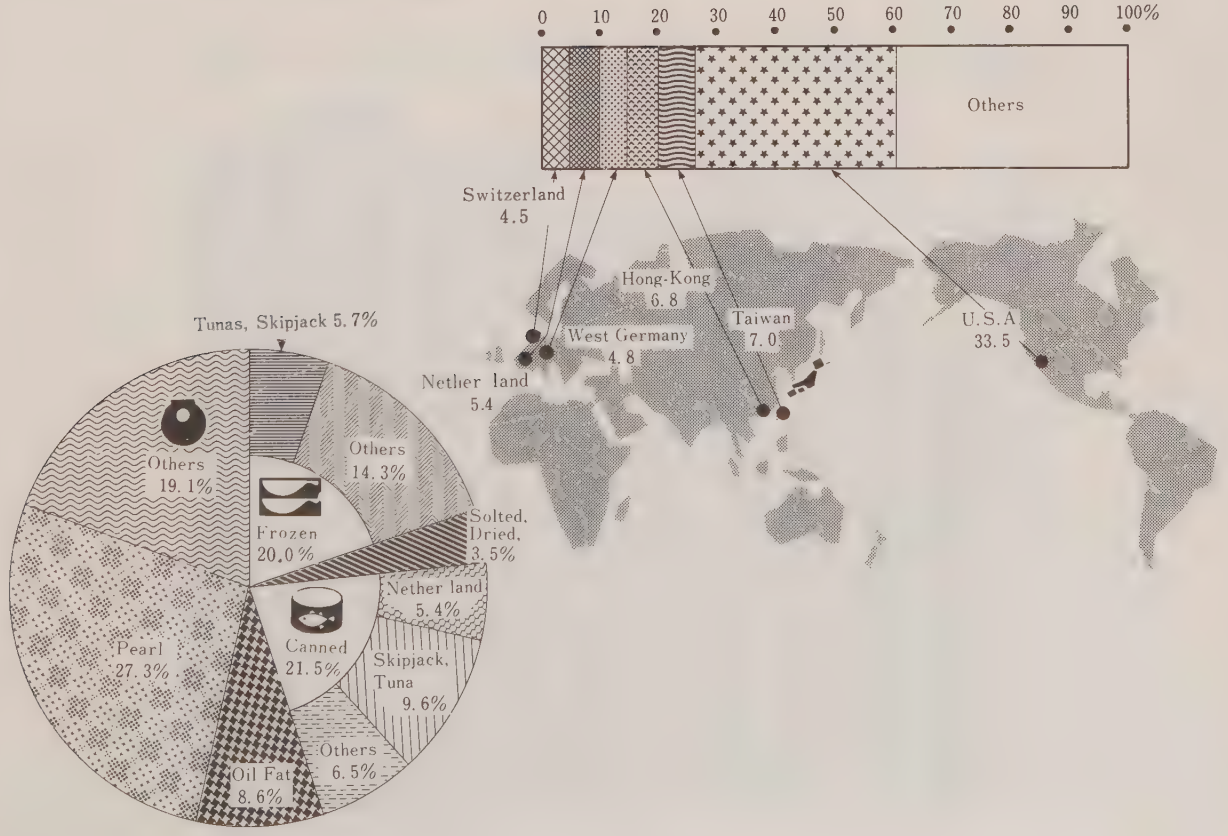
5 Exports and Imports of Fishery Products, 1974～1984



6 Imports of Fishery Products, 1984 (in value)

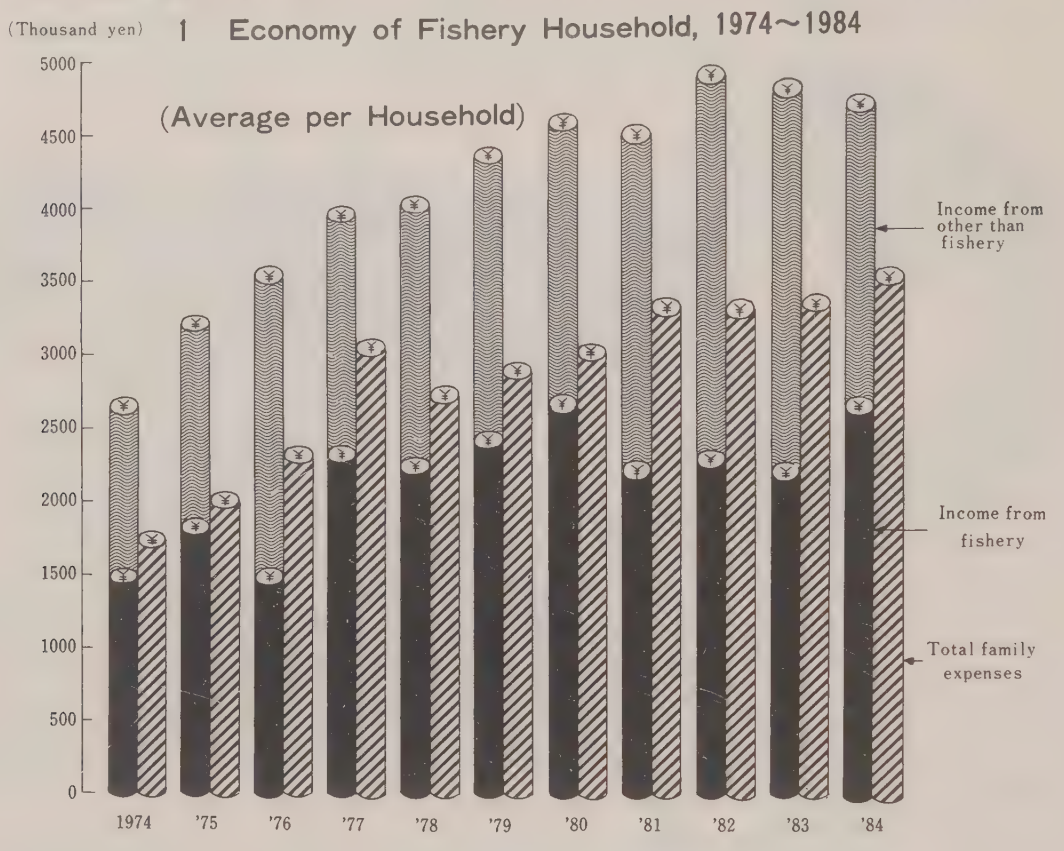


7 Exports of Fishery Products, (in value) 1984

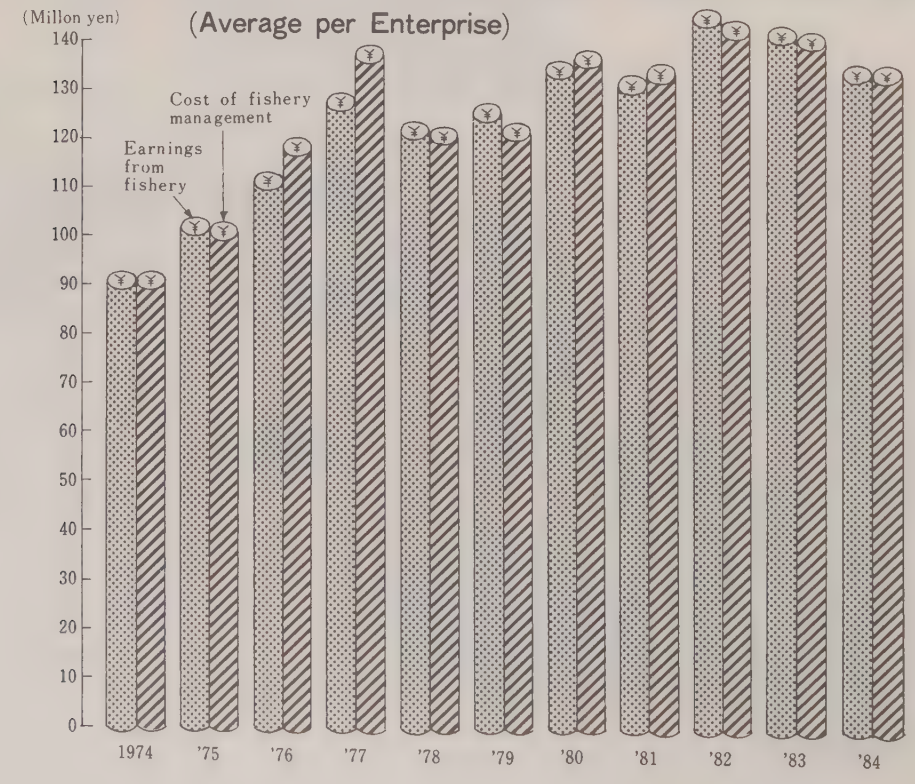


Ⅳ ECONOMY OF FISHERY ESTABLISHMENTS

1 Economy of Fishery Household, 1974～1984



2 Economy of Middle and Small Size Fishery Enterprise, 1974～1984



STATISTICAL TABLES

I FISHERY PRODUCTION

I — 1 SUMMARY OF CATCH BY FISHERY SECTOR, 1974～1984

Unit { Quantity: Thousand metric tons
Value : Hundred million yens

Year	Total		Marine Fisheries		Marine Cultures		Inland Water Fisheries		Inland Water Cultures		Whalings	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Numbers	Value
1974	10,808	17,084	9,749	13,789	880	2,325	112	348	67	622	14,277	327
1975	10,545	18,870	9,573	15,204	773	2,536	127	417	72	713	13,427	337
1976	10,656	21,862	9,605	17,702	850	2,933	124	415	77	811	9,632	216
1977	10,757	25,451	9,688	20,513	861	3,522	126	486	82	930	9,299	206
1978	10,828	24,511	9,683	18,914	917	4,013	138	508	90	1,076	5,924	124
1979	10,587	26,480	9,477	20,559	879	4,229	136	527	95	1,164	4,918	107
1980	11,122	27,712	9,909	21,336	992	4,687	128	578	94	1,110	5,191	126
1981	11,319	27,779	10,143	21,525	960	4,565	124	625	92	1,064	4,887	111
1982	11,388	29,640	10,231	23,129	938	4,556	122	709	96	1,248	4,967	132
1983	11,967	29,032	10,697	22,053	1,060	5,186	117	624	94	1,170	4,606	132
1984	12,816	29,290	11,501	22,279	1,111	5,171	107	607	97	1,233	4,473	139

I — 2 SUMMARY OF CATCH BY SPECIES GROUP, 1974～1984

Unit: Thousand metric tons

Year	Total	Marine Waters					Inland Waters				
		Fishes	Molluscs	Crus-taceans	Aquatic plants	Others	Fishes	Molluscs	Crus-taceans	Aquatic plants	Others
1974	10,808	8,543	1,129	170	601	85	126	44	6	1	3
1975	10,545	8,341	1,156	147	627	75	141	48	7	1	3
1976	10,656	8,378	1,196	129	665	87	142	48	5	1	5
1977	10,757	8,461	1,223	126	638	101	150	49	6	0	3
1978	10,828	8,433	1,232	141	638	155	161	52	9	0	6
1979	10,587	8,277	1,187	134	639	117	168	49	8	0	6
1980	11,122	8,582	1,372	130	695	120	165	43	6	1	8
1981	11,319	8,973	1,226	132	648	124	150	41	6	0	9
1982	11,388	8,996	1,280	151	630	112	170	39	6	1	3
1983	11,967	9,430	1,308	166	710	142	164	37	5	1	4
1984	12,816	10,257	1,278	163	761	153	164	33	4	0	3

I — 3 CATCH IN QUANTITY AND VALUE BY FISHERY TYPE, 1983～1984

Unit { Quantity: Metric tons / Value: Million yen

Type of Fisheries	1983		1984	
	Quantity	Value	Quantity	Value
Total 1)	11,967,382	2,903,230	12,815,908	2,942,878
Marine Fisheries	10,696,562	2,205,292	11,501,374	2,227,938
Mother ship types				
Mother ship type trawl	450,381	44,769	425,246	43,705
Mother ship type salmon fishery	15,414	10,935	14,519	9,053
Mother ship type crab fishery	...	...	...	...
Mother ship type tuna long line	...	...	...	...
Trawls				
Large trawls in N.Pacific Ocean	573,338	66,672	672,579	76,928
Large trawl in Southern Ocean	197,518	48,689	271,530	71,494
Large trawl in East China Sea	161,228	63,047	143,903	56,777
Shrimp trawl	3,727	11,870	3,298	9,996
Medium trawl (one boat operation)	672,410	86,943	738,207	87,734
(two boats operation)	52,178	20,863	49,665	21,007
Small trawls	392,089	177,404	403,299	180,933
Surrounding nets				
Large and medium surrounding net (one boat operation)	3,586,590	238,867	3,917,221	222,661
(two boats operation)	147,046	4,060	155,641	3,934
Purse seine(one boat operation)	658,238	67,840	829,073	77,208
(two boats operation)	314,014	20,374	298,311	19,676
Others	8,423	3,792	10,896	3,223
Lift nets				
Saury stick held dip net	233,159	31,337	207,045	28,374
Others	136,100	19,318	127,445	16,149
Gill nets				
Salmon drift gill net	26,086	20,637	20,234	15,548
Others	446,367	166,101	480,227	170,199
Seine nets				
Beach seine	6,515	2,220	4,964	1,577
"Patchi" seine	95,292	19,773	117,094	15,818
Boat seine	194,749	53,339	241,536	50,596
Set nets				
Salmon large set net	75,710	56,115	62,820	50,229
Other large set net	325,431	63,560	362,096	75,367
Small set nets	166,188	53,254	208,315	56,346
Anglings				
Skipjack pole-and-line on distant waters	156,282	39,732	183,951	38,899
Skipjack pole-and-line on offshore waters	99,535	34,992	148,938	35,597
Skipjack pole-and-line on coastal waters	21,755	6,962	23,241	5,738
Mackerel angling	6,836	1,243	6,545	1,485
Squid angling	262,717	132,999	244,639	123,891
Others	85,611	59,475	93,299	62,382
Long lines				
Tuna long line on distant waters	220,335	245,225	222,572	270,702
Tuna long line on offshore waters	83,681	60,419	74,483	56,259
Tuna long line on coastal waters	23,360	14,364	23,423	14,730
Salmon long line	1,771	1,705	1,682	1,089
Others	95,536	45,131	96,021	44,792
Others				
N. Pacific Ocean tanner crab fishery	799	575	798	575
N. Pacific Ocean long line and gill net	44,585	10,051	46,770	14,586
Shellfish collecting	198,472	60,786	162,538	58,332
Seaweed collecting	187,800	37,498	181,056	34,391
Other fisheries	269,273	102,331	226,152	99,888
Marine Cultures	1,059,782	518,627	1,110,761	517,055
Inland Water Fisheries	116,943	62,360	106,501	60,680
Inland Water Cultures	94,095	116,951	97,272	123,281
Antarctic mother ship type	3,224	7,948	3,027	8,488
N. Pacific mother ship type	–	–	–	–
Coastal large type	929	4,284	881	4,402
Coastal small type	453	929	565	1,034

Notes: 1) Excluding whalings.
2) Including mother ship type tuna long line.
3) Including mother ship type crab fishery.

I — 4 CATCH IN QUANTITY AND

	1983		1984	
	Quantity	Value	Quantity	Value
Total	11,967,382[1)]	2,916,391	12,815,908[1)]	2,942,878
Marine Fisheries	10,696,562	2,205,292	11,501,374	2,227,938
Fishes	9,239,408	1,606,295	10,066,705	1,624,661
Tuna, albacore	356,944	357,548	365,538	378,389
Marlins, swordfishes	48,024	34,776	48,000	36,318
Skipjack, frigate mackerel	369,367	91,457	467,663	85,322
Sharks, rays	43,616	6,794	44,445	6,953
Salmons, trouts	161,036	110,718	157,343	113,436
Herring	8,357	2,498	6,760	1,645
Sardine, round herring	3,780,744	102,234	4,218,355	89,175
Anchovy	207,601	19,795	224,069	17,719
Jack mackerel, scads	174,200	67,064	233,916	77,351
Mackerels	804,849	74,049	813,514	79,058
Saury	239,658	32,058	209,974	28,723
Yellowtails	41,822	30,712	41,212	30,666
Flounders, halibuts, soles	257,424	116,223	264,358	113,941
Cod	104,132	20,581	1,621,351	28,739
Alaska pollack	1,434,428	108,654		122,432
Atka mackerel	55,531	6,704	65,650	7,653
Rockfishes	22,597	14,241	22,612	14,485
Croakers	26,507	6,756	24,158	5,969
Hairtail	34,851	9,670	33,602	10,004
Sea breams	27,314	47,857	26,731	47,077
Spanish mackerel	6,142	7,766	8,045	8,290
Sand lance	120,163	14,194	164,367	11,885
Others	914,101	323,943	1,005,042	309,431
Crustaceans	164,479	138,886	161,260	134,681
Spiny lobster	1,179	6,708	1,119	7,528
"Kuruma" prawn	3,578	17,759	3,356	16,770
Other prawns, shrimps	58,816	65,152	57,643	62,788
King crab	152	116	137	196
Queen crab	8,366	10,766	6,900	10,566
Other crabs	92,388	38,385	92,105	36,833
Molluscs	959,751	375,926	936,578	385,389
Common squid	192,060	104,758	173,732	94,490
Other squids, cuttlefishes	346,535	138,275	352,055	150,256
Octopuses	41,648	19,014	42,973	19,681
Abalones	4,578	17,376	3,898	15,516
Short necked clams	160,424	28,504	128,279	29,861
Common scallop	128,136	29,707	135,239	36,269
"Mogai" clam	4,640	825	767	189
Other clams, shellfishes	81,730	37,467	99,635	39,127

VALUE BY SPECIES, 1983～1984

Unit{ Quantity : Metric tons
Value : Million yen

	1983		1984	
	Quantity	Value	Quantity	Value
Echinodermata, etc.	140,830	45,678	151,222	47,700
Sea urchins	25,254	20,179	23,962	23,450
Sea cucumbers	8,295	5,376	7,624	5,279
Other marine animals	107,281	20,123	119,636	18,971
Marine mamals	2,126	350	2,034	420
Seaweeds	189,968	38,157	183,575	35,087
Kelps	129,043	26,692	114,221	23,432
"Wakame" seaweed	9,565	1,734	9,423	1,818
Agar-agar	9,728	1,893	11,733	1,995
Others	41,632	7,838	48,198	7,842
Marine Cultures	1,059,782	518,627	1,110,761	517,055
Yellowtails	155,879	133,261	152,498	143,016
Pearl	58	59,825	64	65,682
Oyster	253,247	30,950	257,126	31,426
Common scallop	85,111	23,574	73,948	21,225
"Nori" seaweed	360,694	156,209	396,530	127,207
"Wakame" seaweed	112,835	13,913	114,586	14,977
Others	91,958	100,895	116,009	113,522
Inland Water Fisheries	116,943	62,360	106,501	60,680
Salmons, trouts	11,260	4,488	11,100	4,346
Sweet fish	15,579	21,853	14,919	20,714
Common carp, crucian carp	15,550	6,172	15,628	3,136
Eel	1,818	3,101	1,573	7,384
Fresh water clams	36,702	10,720	33,396	9,793
Others	36,034	16,026	29,885	15,307
Inland Water Cultures	94,095	116,951	97,272	123,281
Trouts	20,713	11,600	19,820	12,071
Sweet fish	10,318	11,349	11,705	15,413
Common carp, crucian carp	23,989	10,396	22,563	9,605
Eel	34,489	72,220	38,030	75,946
Others	4,586	11,386	5,154	10,246
Whaling	4,606[2)]	13,161	4,473[2)]	13,924
Blue whale	-	-	-	-
Fin whale	-	-	-	-
Humpback whale	-	-	-	-
Sei whale	536	...	481	...
Sperm whale	393	...	400	...
Mink whale	3,514	...	3,394	...
Bottlenose whale	37	...	38	...
Pilot whale	125	...	160	...
Others	-	-	-	-

Notes : 1) Excluding whales.
2) Actual number of catch.

I — 5 CATCHES OF MAJOR SPECIES

(1) Tunas, albacore

Unit: Metric tons

	1980	1981	1982	1983	1984
Total Catch	378,496	360,279	372,143	356,944	365,538
Tuna long line					
mother ship type	...	...	...	...	...
in distant waters	175,280	165,783	179,078	177,794	180,036
in offshore waters	74,164	63,312	55,757	58,025	46,437
in coastal waters	16,417	13,811	14,481	18,001	17,269
Skipjack pole-and-line	65,209	44,778	48,597	40,757	45,955
Surrounding nets	32,979	52,051	54,392	48,959	75,841
Others	14,447	20,544	19,838	13,475	

(2) Marlins, swordfishes

Total Catch	44,122	47,455	44,479	48,024	48,000
Tuna long line					
mother ship type	...	...	...	...	...
in distant waters	23,359	26,964	27,688	29,650	28,923
in offshore waters	10,355	9,851	8,295	9,571	10,407
in coastal waters	2,329	1,834	1,891	2,434	2,916
Other gill nets	6,218	7,241	4,895	4,014	3,578
Others	1,861	1,565	1,710	2,355	2,176

(3) Skipjack

Total Catch	354,156	289,286	302,982	352,694	446,318
Skipjack pole-and-line					
in distant waters	166,068	148,704	128,882	131,138	158,006
in offshore waters	115,962	18,425	76,423	80,240	127,750
in coastal waters	13,538	10,556	12,841	12,801	11,835
Surrounding nets (one boat)	49,137	43,023	72,794	114,774	134,512
Surrounding nets (two boats)	175	–	1	–	–
Other anglings	6,476	3,843	6,717	6,768	7,023
Others	2,800	4,735	5,324	6,973	7,192

(4) Salmons, trouts

Total Catch	122,515	149,844	136,309	161,036	157,343
Mother ship type salmon fishery	15,441	15,445	15,429	15,414	14,519
Salmon drift gill net	26,069	25,978	26,421	26,086	20,234
Salmon large set net	52,197	71,485	58,968	72,149	58,245
Small set nets	9,690	12,476	11,158	13,601	16,205
Other long lines	2,860	2,910	3,250	4,669	6,686
Others	16,258	21,550	21,083	29,117	41,454

(5) Herring

Total Catch	11,154	8,901	24,197	8,357	6,760
Mother ship type trawl	15	–	–	–	–
Large trawl in Southern Ocean	–	–	–	–	–
Medium trawl(one boat)	9,585	8,006	22,459	7,355	5,160
Other gill nets	988	615	1,350	587	1,151
Others	566	280	388	415	449

Note : 1) Including mother ship type tuna long line.

BY FISHERY TYPE, 1980～1984

(6) Sardine, round herring

Unit: Metric tons

	1980	1981	1982	1983	1984
Total Catch	2,236,158	3,125,377	3,324,749	3,780,744	4,218,355
Surrounding nets (one boat)	1,677,905	2,369,434	2,585,512	3,120,175	3,480,879
Surrounding nets (two boats)	234,409	408,194	388,469	368,564	369,258
Other surrounding nets	342	548	883	574	2,471
Other lift nets	45,726	41,032	24,575	17,788	22,257
Set nets	179,277	232,454	222,298	229,661	261,228
Others	98,499	73,715	103,012	43,982	82,262

(7) Anchovy

Total Catch	150,606	160,467	197,453	207,601	224,069
Surrounding nets (one boat)	48,079	45,161	61,584	64,647	74,313
Surrounding nets (two boats)	37,288	42,655	46,043	51,810	46,512
Set nets	10,407	9,309	10,853	12,192	11,253
"Patchi" seine	22,784	32,685	34,022	38,599	48,195
Boat seine	25,750	25,404	37,117	31,802	34,330
Others	6,298	5,253	7,834	8,551	

(8) Jack mackerel, scads

Total Catch	144,979	122,231	174,213	174,200	233,916
Surrounding nets (one boat)	118,984	98,137	144,859	139,543	197,266
Surrounding nets (two boats)	3,787	3,866	5,702	9,505	8,029
Other lift nets	8,585	4,326	5,382	3,825	5,155
Set nets	7,448	8,143	10,651	12,162	11,383
Others	6,175	7,759	7,619	9,165	12,083

(9) Mackerels

Total Catch	1,301,122	908,015	717,840	804,849	813,514
Surrounding nets (one boat)	1,092,895	744,037	617,639	655,655	703,070
Surrounding nets (two boats)	25,095	19,915	15,169	17,600	19,562
Mackerel pole-and-line	2,698	3,961	4,038	6,646	6,386
Set nets	26,830	23,195	19,919	15,150	33,166
Others	153,604	116,907	61,075	109,798	51,330

(10) Saury

Total Catch	187,155	160,319	206,958	239,658	209,974
Saury stick held dip net	180,250	154,789	195,484	233,044	206,445
Other gill nets	2,803	3,542	6,303	4,096	2,102
Set nets	4,055	1,945	4,327	2,393	1,382
Others	47	43	844	125	45

I — 5 CATCHES OF MAJOR SPECIES

(11) Yellowtails

Unit: Metric tons

	1980	1981	1982	1983	1984
Total Catch	42,009	37,774	38,443	41,822	41,212
Surrounding nets	10,008	6,623	5,424	7,589	11,124
Large set nets	10,236	11,678	12,813	15,005	10,603
Small set nets	5,188	4,468	4,979	4,786	4,399
Other gill nets	5,042	4,136	5,680	6,485	5,921
Other anglings	9,095	7,909	7,738	6,511	8,203
Others	2,440	2,960	1,809	1,446	962

(12) Flounders, halibuts, soles

Total Catch	288,881	296,572	274,856	257,424	264,358
Mother ship type trawl	58,707	62,304	59,522	47,253	39,241
Large trawls in N.Pacific Ocean..	89,700	87,188	78,051	87,572	103,225
Large trawl in East China Sea ...	16,836	15,915	14,772	13,173	10,127
Medium trawls	47,488	48,828	44,236	39,538	41,084
Small trawls	27,019	27,627	26,173	26,229	23,563
Other gill nets	35,800	36,871	39,958	32,541	37,555
Others	13,331	12,839	12,144	11,118	9,563

(13) Cod

Total Catch	96,742	102,205	95,127	104,132	114,018
Mother ship type trawl	9,939	10,555	7,467	8,945	7,538
Large trawls in N.Pacific Ocean..	19,319	19,502	12,722	18,086	15,754
Medium trawls	16,949	16,567	20,130	18,130	20,545
Other gill nets	11,904	17,886	20,711	20,021	20,774
Other long lines	3,377	2,367	1,399	1,354	1,784
Others	35,254	35,328	32,698	66,536	47,623

(14) Alaska pollack

Total Catch	1,552,421	1,595,302	1,567,481	1,434,428	1,621,351
Mother ship type trawl	479,734	452,815	441,308	389,634	377,471
Large trawls in N.Pacific Ocean..	463,846	462,972	449,913	422,335	515,061
Medium trawls	431,381	479,422	467,472	442,882	487,088
Other gill nets	107,421	129,416	135,649	114,970	174,101
Other long lines	54,369	50,191	55,338	48,609	44,816
Others	15,670	20,486	17,801	15,998	22,814

(15) Sea breams

Total Catch	28,151	26,567	27,435	27,314	26,731
Large trawl in Southern Ocean ...	–	–	–	–	–
Large trawl in East China Sea ...	4,657	4,393	4,599	4,512	3,753
Small trawls	2,926	2,561	3,058	3,449	3,530
Other gill nets	3,286	3,070	2,947	2,951	2,949
Boat seine	3,899	3,550	4,077	3,423	4,202
Other angling and long lines	8,786	8,447	8,778	8,112	7,962
Others	4,567	4,546	3,976	4,867	4,335

BY FISHERY TYPE, 1980～1984 (Continued)

(16) Sand lance

Unit: Metric tons

	1980	1981	1982	1983	1984
Total Catch	201,226	162,448	126,658	120,163	164,367
Medium trawls	55,050	75,701	53,941	29,437	41,972
Other lift nets	74,875	35,800	30,539	30,658	12,224
"Patchi" seine	9,637	2,715	1,452	5,490	4,555
Boat seine	51,586	38,791	31,591	47,346	89,181
Small set nets	1,532	1,101	1,330	1,347	739
Others	8,546	8,340	7,805	5,885	15,696

(17) Lobster, shrimps, prawns

Total Catch	50,505	54,048	59,064	63,573	62,118
Large trawls in N.Pacific Ocean	-	-	-	-	-
Shrimp trawl	3,320	3,525	4,394	3,702	3,298
Large trawl in East China Sea	2,460	1,108	3,144	2,769	2,362
Medium trawls	3,124	3,756	3,808	3,713	3,205
Small trawls	31,424	32,411	34,395	39,383	37,189
Other surrounding nets	0	0	0	-	-
Others	10,177	13,248	13,323	14,006	16,064

(18) Crabs

Total Catch	77,560	76,227	90,342	100,906	99,142
Mother ship type crab fishery	...	...	...	...	...
Medium trawls	3,497	3,452	3,213	2,998	2,326
Small trawls	5,592	6,868	7,185	8,528	7,298
Other gill nets	3,570	3,306	3,475	3,899	3,515
Other fishery (crab cages,etc.)	56,632	61,324	69,639	78,439	78,004
Others	8,269	1,277	6,830	7,042	7,999

(19) Squids, cuttlefishes

Total Catch	686,611	516,500	550,438	538,595	525,787
Large trawl in Southern Ocean	62,321	54,063	62,729	42,150	85,605
Large trawl in East China Sea	26,624	23,117	26,307	29,797	31,177
Medium trawls	28,114	23,124	20,933	19,600	21,307
Set nets	22,863	21,604	13,742	21,821	19,013
Squid angling	451,046	282,091	269,041	262,333	244,541
Others	95,643	112,501	157,686	100,165	124,144

(20) Octopuses

Total Catch	46,105	52,236	43,206	41,648	42,973
Large trawl in Southern Ocean	17	7,845	725	-	5
Medium trawls	3,062	2,565	3,240	3,124	2,482
Small trawls	9,128	10,405	10,513	10,831	8,408
Other long lines	6,934	5,775	5,522	5,493	7,417
Other fishery (octopus pots)	22,377	20,896	18,910	17,787	21,180
Others	4,587	4,750	4,296	4,413	3,481

Note : 1) Including mother ship type crab fishery.

I－6 INDEX NUMBER OF FISHERY PRODUCTION BY TYPE OF FISHERIES, 1980～1984 (1980=100)

Group	1980	1981	1982	1983	1984
Fisheries total	100.0	98.1	99.0	103.5	106.1
Marine fisheries and marine cultures	100.0	98.1	98.9	103.8	106.5
Distant water fisheries 1)	100.0	95.0	94.0	91.5	97.3
Offshore fisheries 2)	100.0	95.9	98.4	102.0	105.7
Coastal fisheries 3)	100.0	111.9	101.5	103.1	108.4
Marine cultures	100.0	103.5	99.6	115.2	122.3
Inland water fisheries and inland water cultures	100.0	98.7	102.1	100.1	102.2
Whalings	100.0	86.5	88.4	83.7	81.9

Notes : 1) This type of fisheries covers mother ship type fisheries, large trawl in Eastern China Sea, distant water trawls, tuna long line on distant water, skipjack pole-and-line on distant waters, North Pacific Ocean tanner crab fishing, North Pacific Ocean long line and gill net.

2) This type of fisheries covers fisheries operating with powered boat of more than 10 gross tonnage except for fisheries on distant waters, collecting shellfish, collecting seaweeds, set net and beach seine.

3) This type of fisheries covers fisheries operating without fishing boat, with non-powered boat, with powered boat less than 10 gross tonnage including collecting shellfish, collecting seaweeds, set net and beach seine.

4) The calculation method of the index is as follows:

(1) The items adopted amount to 120 commodities; 80 for marine fisheries, 14 for marine cultures, 4 for whaling, 15 for inland water fisheries, and 7 for inland water cultures.

(2) Formula

The index numbers are computed by the Laspeyres formula.

$$Q_{0t} = \frac{\Sigma W_0 (q_t / q_0)}{\Sigma W_0}$$

W_0 : Weights of the base period.

q_0 : Quantity of production in the base period.

q_t : Quantity of production in the current period.

(3) Weight

The weights were determined by the production value for 1979 and 1980 obtained by maltiplying quantity of production by price, and expressed as portions of 10,000.

I — 7 INDEX NUMBER OF FISHERY PRODUCTION BY SPECIES, 1980～1984 (1980=100)

Item	1980	1981	1982	1983	1984
Marine Fisheries					
Bluefin tuna	100.0	118.2	89.3	74.0	72.2
Albacore	100.0	92.0	100.5	73.9	91.3
Bigeye tuna	100.0	89.7	107.0	113.0	106.7
Yellowfin tuna	100.0	92.4	96.0	94.5	97.0
Striped marlin	100.0	95.9	87.3	86.5	81.5
Brodbill swordfish	100.0	122.0	109.1	124.4	125.1
Skipjack	100.0	81.7	85.6	99.6	126.0
Sharks	100.0	87.4	82.7	84.0	83.7
Salmons	100.0	122.7	113.4	133.8	136.3
Trouts	100.0	120.5	102.1	121.0	94.5
Herring	100.0	79.8	216.9	74.9	60.6
Sardine	100.0	140.6	149.7	170.4	190.2
Anchovy	100.0	106.5	131.1	137.8	148.8
Jack mackerel	100.0	115.2	195.9	242.7	253.0
Mackerels	100.0	69.8	55.2	61.9	62.5
Saury	100.0	85.7	110.6	128.1	112.2
Yellowtail	100.0	89.9	91.5	99.6	98.1
Flounders, soles	100.0	103.0	95.3	89.0	91.3
Cod	100.0	105.6	98.3	105.6	117.9
Alaska pollack	100.0	102.8	100.9	92.4	104.4
Red sea bream	100.0	90.4	98.6	96.6	105.3
Sand lance	100.0	80.7	62.9	59.7	81.7
King crab	100.0	46.4	253.6	271.4	244.6
Common squid	100.0	59.4	54.9	58.0	52.5
Octopuses	100.0	113.3	93.7	90.3	93.2
Sea urchins	100.0	99.3	107.5	104.5	99.2
Sea cucumbers	100.0	90.3	94.0	92.5	85.0
Abalone	100.0	96.5	94.4	93.8	79.9
Kelp	100.0	89.9	116.9	103.4	91.5
Marine Cultures					
Yellowtail	100.0	101.0	98.0	104.4	102.1
"Kuruma" prawn	100.0	107.8	129.4	148.9	131.8
Oyster	100.0	90.0	95.8	96.9	98.4
Common scallop	100.0	146.3	190.3	210.7	183.0
"Nori" laver	100.0	99.5	77.5	106.7	116.3
"Wakame" seaweed	100.0	80.4	104.2	99.4	100.9
Inland Water Fisheries					
Salmons	100.0	91.7	98.9	89.8	93.8
Pond smelt	100.0	95.2	106.5	110.3	121.7
Sweet fish	100.0	104.6	101.0	105.8	101.3
Common carp	100.0	95.6	96.8	89.0	89.6
Crucian carp	100.0	91.4	83.9	79.5	79.8
Inland Water Cultures					
Rainbow trout, etc.	100.0	101.3	103.6	103.7	99.2
Sweet fish	100.0	118.8	128.0	129.2	146.5
Common carp	100.0	95.0	96.2	89.4	84.1
Eel	100.0	92.8	100.1	94.2	103.9

Ⅱ STRUCTURE OF FISHERY PRODUCTION

Ⅱ — 1 NUMBER OF MARINE FISHERIES ESTABLISHMENTS, 1980～1984

Unit : Number

Type and size of management	1980	1981	1982	1983	1984
Grand Total	216,433	214,056	212,137	207,439	205,943
Without fishing boat	8,481	8,406	8,309	7,855	7,892
With non-powered boats	1,357	1,141	1,079	1,636	1,188
With powered boats					
Sub-total	149,087	148,071	147,796	145,889	144,568
Less than 3 G.T.	91,260	89,656	88,521	85,977	84,881
3 - 5	34,366	34,703	35,603	36,477	36,443
5 - 10	11,865	12,137	12,202	12,186	12,173
10 - 30	7,125	7,194	7,309	7,245	7,126
30 - 100	2,757	2,711	2,565	2,461	2,431
100 - 200	658	641	606	564	565
200 - 500	536	522	504	475	466
500 - 1,000	298	295	282	283	278
1,000 G.T. and over	222	212	204	221	205
Set nets and beach seine					
Sub-total	8,495	8,383	8,358	7,970	8,106
Large set nets	1,160	1,175	1,179	1,162	1,166
Small set nets	6,789	6,721	6,729	6,231	6,536
Beach seine	546	487	450	577	404
Culture					
Sub-total	49,013	48,055	46,595	44,089	44,189
Laver culture	24,162	22,857	21,196	19,056	18,572
Oyster culture	4,293	4,269	4,232	3,785	3,839
Pearl culture	1,794	1,803	1,840	1,882	1,927
Wakame seaweed culture ...	7,095	7,113	7,069	6,393	6,425
Yellowtail culture	3,457	3,399	3,287	3,102	2,921
Common scallop culture ...	3,191	3,284	3,378	3,892	3,967
Other cultures	5,021	5,330	5,593	5,979	6,538

Note : Excluding the number of fisheries establishments which engaged in fishing for less than 30 days in a year.

Ⅱ — 2 NUMBER OF MARINE FISHERY WORKERS, 1980～1984

Unit : Thousand men

	1980	1981	1982	1983	1984
Grand Total	457.4	449.0	437.2	446.5	439.5
Men	376.9	367.8	357.2	368.3	362.9
15 - 39 years old	118.2	111.1	103.8	111.5	102.5
40 - 59 years old	193.6	191.1	188.2	192.5	194.5
60 years old and over	65.1	65.5	65.2	64.3	66.0
Women	80.5	81.2	80.0	78.2	76.6

Ⅱ－3 NUMBER OF FISHING BOATS, 1980～1984

Unit : Number

Size	1980	1981	1982	1983	1984
Total	449,847	445,060	445,116	442,436	440,481
Marine	428,854	424,207	424,582	422,996	420,829
Non-powered	27,504	25,767	24,143	21,876	19,283
Powered	401,350	398,440	400,439	401,120	401,546
Less than 5 G.T.	364,867	361,780	363,875	364,620	365,207
5 - 9	15,896	16,196	16,248	16,480	16,605
10 - 49	13,190	13,244	13,364	13,172	13,060
50 - 99	3,943	3,823	3,640	3,523	3,372
100 - 199	1,450	1,415	1,382	1,371	1,356
200 - 499	1,758	1,749	1,693	1,704	1,696
500 - 999	71	63	54	54	55
1,000 G.T. and over	175	170	183	196	195
Inland Water	20,993	20,853	20,534	19,440	19,652
Non-powered	5,277	5,640	5,867	6,276	6,705
Powered	15,716	15,213	14,667	13,164	12,947
Less than 5 G.T.	15,707	15,203	14,652	13,147	12,929
5 G.T. and over	9	10	15	17	18
Number of F.R.P. Boats in Marine Total	191,556	210,142	225,585	240,507	254,275
Less than 1 G.T.	63,644	65,221	70,252	78,212	86,613
1 - 3	80,585	89,085	95,715	99,450	102,307
3 - 5	37,120	40,635	43,202	45,353	46,963
5 - 10	7,947	9,102	9,799	10,557	11,136
10 - 20	4,762	5,507	5,977	6,279	6,599
20 G.T. and over	490	592	640	656	657

Ⅱ－4 GROSS TONNAGES OF FISHING BOATS, 1980～1984

Unit : G.T.

Size	1980	1981	1982	1983	1984
Total	2,833,684	2,806,689	2,815,494	2,872,777	
Marine	2,815,194	2,787,955	2,796,869	2,855,202	2,855,808
Non-powered	24,153	23,186	21,996	20,458	18,542
Powered	2,791,041	2,764,769	2,774,873	2,834,743	2,837,266
Less than 5 G.T.	639,939	645,676	654,912	650,159	644,928
5 - 9	125,524	128,458	129,840	131,220	132,091
10 - 49	252,374	250,645	249,662	243,462	236,339
50 - 99	305,776	295,164	279,258	270,773	259,375
100 - 199	205,635	202,151	197,764	196,273	194,586
200 - 499	584,007	583,506	566,977	570,830	570,203
500 - 999	55,189	48,621	42,671	42,936	44,051
1,000 G.T. and over	622,598	610,547	653,790	729,091	752,693
Inland Water	18,490	18,734	18,626	17,576	17,335
Non-powered	2,681	3,092	3,024	3,093	3,231
Powered	15,809	15,642	15,602	14,483	14,104
Less than 5 G.T.	15,742	15,567	15,493	14,352	13,967
5 G.T. and over	67	75	109	131	137
Gross Tonnages of F.R.P. Boats in Marine Total	506,363	564,917	608,030	637,619	660,818
Less than 1 G.T.	45,709	47,503	50,981	54,644	58,582
1 - 3	135,535	150,192	162,755	168,639	172,580
3 - 5	161,905	177,502	188,338	197,341	203,431
5 - 10	63,423	73,014	78,971	84,421	88,718
10 - 20	73,464	84,753	92,045	96,538	101,055
20 G.T. and over	26,326	31,951	34,939	36,035	36,451

III MARKETING OF FISHERY PRODUCT

III — 1 QUANTITY AND PRICE OF LANDINGS BY COMMODITY AT FISH MARKETS IN PRODUCING AREAS, 1984

Commodity	Quantity of landings	Price
Total of fishes, other marine animals, marine mammals	7,310,829	117
Bluefin tuna		
Fresh	2,306	1,906
Frozen	18,536	3,226
Albacore		
Fresh	19,364	414
Frozen	38,866	363
Bigeye tuna		
Fresh	13,048	1,361
Frozen	69,954	1,145
Yellowfin tuna		
Fresh	19,688	770
Frozen	39,900	668
Other tunas		
Fresh	8,317	561
Frozen	32,360	245
Striped marlin		
Fresh	2,705	878
Frozen	3,831	1,106
Broadbill swordfish		
Fresh	7,141	740
Frozen	5,753	902
Black marlins		
Fresh	2,824	504
Frozen	8,329	494
Other swordfish, marlins and sailfish		
Fresh	860	978
Frozen	834	262
Skipjack		
Fresh	117,925	180
Frozen	231,134	156
Salmons		
Fresh	41,112	694
Frozen	347	1,054
Salted	9,708	1,054
Salmons (Pink and cherry salmons)		
Fresh	5,388	547
Frozen	1,985	511
Salted	432	514
Sardine	3,410,368	17
Round herring	18,028	86
Jack mackerel	94,883	288
Scads	80,903	216
Mackerels	733,164	77
Saury	201,958	135
Bastard halibut	2,086	1,745
Flounders, soles		
Fresh	58,138	439
Frozen	22,703	361
Cod		
Fresh	39,827	185
Frozen	23,554	342
Alaska pollack		
Fresh	890,164	59
Frozen	16,772	129
Atka mackerel	33,905	123
"Menuke" Rockfishes		
Fresh	2,084	846
Frozen	2,343	680
"Kichiji" Rockfishes	4,600	989
Sand fish	3,708	384
Deep sea smelts	2,901	262
Sharks		
Fresh	22,522	143
Frozen	4,190	297
Yellow croaker	838	181
Other croakers	20,175	213
Lizard fishes	9,508	173
Butter fish	1,300	935
Sharp toothed eel	9,947	283
Hairtail	20,950	202
Gurnards	920	306
Skates and rays	9,025	120
Rod sea bream	5,579	1,436
Crimson sea bream	490	1,216
Yellow sea bream	6,042	962
Black sea bream	183	1,092
Yellowtails	21,939	711
Spanish mackerels		
Fresh	25,993	334

Notes : 1) The quantity of landings is of the 51 fishing ports in the producing areas.
2) The prices here show the average prices per Kg, which are obtained by dividing the value of landings by the quantities of landings.

Unit { Quantity: tons / Price: yen per Kg

Commodity	Quantity of landings	Price
Dolphin fishes	5,646	185
Flying fishes	2,340	206
Mallets	510	320
Common sea bass	402	1,291
Herring	3,855	288
Sand lance	84,864	50
Anchovy	15,540	78
Post larval	1,985	224
Other fishes		
Fresh	261,966	261
Frozen	26,241	517
Cuttlefishes		
Fresh	8,659	308
Other squids and cuttlefishes	153,143	426
Octopuses		
Fresh	8,818	326
Frozen	62	177
Spiny lobster	57	5,935
"Kuruma" prawn	141	2,893
Other lobster, prawn and shrimps		
Fresh	4,797	917
Frozen	866	2,176
King crab	9	1,577
Tanner crab	1,197	1,190
Blue crabs	767	345
Other crabs	47,635	238
Sea urchins		
With shells	170	1,490
Shelled	321	8,842
Sea cucumbers	458	787
Other marine animals		
Fresh	34,679	34
Frozen	-	-
Marine mammals	916	224

Commodity	Quantity of landings	Price
Total of shellfishes		
With shell	13,781	368
Shelled	1,111	780
Abalones with shell	192	3,372
Top shell with shell	346	1,369
Hard clams		
With shell	15	491
Short-necked clams		
With shell	894	459
Common scallop		
With shell	8,337	238
Shelled		
Hen clams		
With shell	529	786
Shelled	67	2,971
Oyster		
With shell	49	362
Shelled	333	756
Other shellfishes		
With shell	3,420	332
Shelled	711	585
Total of seaweeds		
Fresh	992	350
Dried	4,984	1,005
"Kombu" tangle		
Dried	4,872	990
"Wakame" seaweed		
Fresh	384	201
Dried	67	1,941
Other seaweeds		
Fresh	608	444
Dried	46	1,189

Note : 1) Quantity is expressed in unit of 10,000 sheets and price 10 sheets.

Ⅲ — 2 QUANTITY AND PRICE OF ARRIVALS BY COMMODITY AT TOKYO CENTRAL WHOLESALE MARKETS, 1984

Unit { Quantity: Metric tons / Price: yen per Kg

Commodity	Quantity of arrivals	Price
Fresh		
Marine fishes	179,383	893
Bluefin tuna	1,394	3,317
Albacore	254	480
Bigeye tuna	2,522	2,290
Yellowfin tuna	2,895	1,109
Other tunas	2,368	1,003
Striped marlin	438	1,602
Broadbill swordfish	831	997
Blue marlins	248	601
Other marline	1	235
Skipjacks	13,852	394
Salmons	2,930	838
Salmons (Pink and cherry salmons)	627	722
Sardine	12,165	155
Round herring	114	419
Jack mackerel	12,401	827
Mackerels	11,389	342
Saury	11,027	396
Common squid	8,583	722
Bastard halibut	633	2,477
Flat fishes	6,496	998
Cod	2,734	360
Atka mackerel	749	144
Rock fishes	1,873	1,287
Sharks	1,602	309
Yellow croaker	-	-
Other croakers	926	429
Sharp toothed eel	174	1,215
Hairtail	1,021	568
Red sea bream	1,744	1,710
Crimson sea bream	298	1,893
Yellow sea bream	37	1,061
Yellowtail	21,124	1,002
Fishery	5,898	793
Culture	15,226	1,084
Spanish mackerels	2,939	703
Flying fishes	729	540
Common sea bass	450	1,338
Other fishes	40,478	1,008
Cuttlefish	1,494	890
Other squids and cuttlefishes	2,634	829
Octopuses	545	544
Spiny lobstor	146	6,758
"Kurumaebi" prawn	106	6,950
"Taisho ebi" prawn	196	2,589
Other shrimps	2,816	2,662
Crabs	1,312	1,878
Other marine animals	2,188	4,382
Inland water fishes	4,210	1,400
Shellfishes	59,290	685
Abalones with shell	981	4,587
Short necked clam with shell	9,312	371
Oyster shelled	4,551	932
Freshwater clam with shell	4,401	297
Other shellfishes	40,118	684
Frozen		
Bluefin tuna	14,111	3,041
Albacore	4,683	434
Bigeye tuna	37,765	1,331
Yellowfin tuna	4,665	917
Other tunas	-	-
Striped marlin	2,359	1,457
Bradbill swordfish	6,622	1,094
Blue marlins	677	532
Other marlins	403	690
Skipjack	626	372
Salmons	31,528	1,045
Salmons(Pink and cherry salmons)	4,144	514
Jack mackerel	4,150	399
Mackerels	8,206	325
Saury	4,395	333
Common squid	15,488	574
Flat fishes	12,972	545
Cod	3,009	423
Rock fishes	3,472	557
Sea breams	2,751	524
Spanish mackerels	2,871	521
Herring	6,467	336
Other fishes	42,372	690
"Mongo-ika" cuttlefish ...	13,421	1,009
Other cuttlefishes	26,613	442
Octopuses	17,922	557
"Taisho ebi" prawn	269	2,844
Meat of whale		
Fresh	464	1,616
Frozen	1,600	1,157
Processed fishery product		
Salted and dried		
Sardine, round herring ..	10,494	323
Jack mackerel, scad	13,194	636
Mackerels	3,066	383
Saury	8,975	334
Salted		
Salmons	31,925	1,079
Salmons(Pink and cherry salmons)	1,468	693
Mackerels	199	396
Other salted product	23,040	2,290
Processed whale products .	596	1,831
Seaweeds	7,382	373
Other processed fishers products	206,391	585

Note: The prices here show the average price which are obtained by dividing the value of arrivals by the quantities of arrivals.

Ⅲ－3 PRICES OF MAJOR FISHERY PRODUCTS BY STEPS OF DISTRIBUTION IN TOKYO, 1984

Unit : Yen per kg

commodity		Wholesale price	Broker price	Retail price	Ratio of retail price to wholesale price
Bigeye tuna 1)	frozen	1,104	1,627	4,696	425
Yellowfin tuna 1)	frozen	-	-	-	-
Skipjack tuna 1)	fresh	355	494	1,605	452
Chum salmon 1)	salted	1,262	1,463	2,308	183
Sardine (Round fish)	fresh	182	278	469	258
Jack mackerel (Round fish)	fresh	1,197	1,689	2,055	172
Mackerel (Round fish)	fresh	394	590	807	205
	frozen	-	-	-	-
Saury (Round fish)	fresh	452	701	1,035	229
	frozen	-	-	-	-
Yellowtails 1)	fishery	-	-	-	-
	cultured	1,078	1,205	3,123	290
Common squid (Round fish)	fresh	804	1,022	1,285	160
	frozen	-	-	-	-
Oyster (Without shell)	fresh	924	1,275	2,193	237

Note : 1) Round fish for wholesale and broker price and sliced meat for retail price.

Ⅲ — 4 PROCESSED FISHERY

Proceseed products 1)	1980	1981	1982	1983	1984
Boiled and dried	97.9	93.2	102.3	107.1	107.5
Anchovies	79.6	73.7	82.9	86.3	85.7
Jack mackerel	0.6	–	–	–	–
Sand lance	9.1	9.1	9.7	11.0	11.4
Others	8.6	10.4	9.7	9.8	10.3
Cured	124.6	113.6	118.9	118.0	116.5
Mackerels	27.9	22.5	19.9	18.6	17.1
Skipjack	32.0	29.6	35.4	35.5	35.5
Others	64.7	61.5	63.6	63.9	63.9
Dried	32.7	34.8	37.1	39.6	37.8
Herring	12.1	14.8	17.3	17.6	17.2
Squids	11.5	11.6	9.4	11.1	10.3
Others	9.1	8.4	10.4	11.0	10.4
Dressed frozen	153.1	186.5	211.1	235.9	245.5
Frozen	3,134.2	3,622.4	3,902.1	3,933.4	4,338.6
Albacore, tunas	212.4	193.1	234.4	232.0	304.7
Cod, Alaska pollack	128.7	204.2	256.8	195.0	245.3
Halibut, flounders	113.0	108.8	122.5	101.7	97.2
Mackerels	508.3	319.3	272.0	343.9	398.2
Marlins	22.7	26.7	31.4	34.0	41.8
Sardines, anchovies	515.0	1,053.7	1,222.1	1,300.3	1,338.5
Saury	150.3	141.8	174.3	178.6	166.2
Skipjack	167.4	142.5	129.8	143.9	288.5
Squids, cuttlefishes	282.9	313.5	379.1	358.3	347.1
Whales	15.7	14.2	19.0	19.0	16.4
Minced fish meats	364.2	354.9	373.0	379.9	416.9
Others	653.6	749.7	658.6	646.6	677.8
Kneaded	911.1	948.9	960.9	996.2	990.4
"Chikuwa" 2)	174.4	180.7	187.7	194.9	196.2
Fish sausage	87.4	91.9	95.2	98.1	94.7
"Kamaboko" 3)	362.1	359.6	352.1	346.6	330.2
Others	287.2	316.7	325.9	356.6	369.4
Manure and feed	952.5	992.8	1,094.0	1,233.1	1,365.8
Fish meal	517.5	514.0	567.7	655.4	718.0
Dried press cake	254.4	290.8	320.3	384.7	427.5
Others	180.6	188.0	206.0	192.9	220.3
Oil and fat	263.1	279.1	313.1	349.9	417.2
Fish oil, fish viscera oil	255.9	277.3	308.4	346.9	414.5
Whale oil	7.2	5.8	4.7	3.0	2.7
Salted	255.7	284.1	290.8	311.7	328.1
Alaska pollack roe, cod roe	32.2	41.8	41.9	46.0	50.7
Cod, Alaska pollack	18.6	19.1	23.4	23.2	19.3
Herring roe, salmon roe	11.9	13.9	15.0	16.3	17.8
Mackerels	63.4	59.1	37.5	45.0	51.9
Salmons	79.9	93.5	108.3	133.3	110.0
Trouts	17.5	21.3	22.3	18.2	21.9
Others	32.2	35.4	42.4	44.9	56.5

PRODUCTS, 1980～1984

Unit { Thousand metric tons / Canned: ton

Processed products	1980	1981	1982	1983	1984
Salted and dried	275.5	260.2	270.9	273.7	263.7
Jack mackerel	51.9	47.0	49.1	47.5	49.6
Mackerels	30.2	27.4	23.2	21.4	25.5
Sardines, anchovies	77.3	68.4	69.2	73.4	69.9
Saury	35.2	34.2	36.0	36.3	36.2
Others	80.9	83.2	93.4	95.1	82.5
Smoked	10.6	11.7	12.0	13.5	15.2
Salmons, trouts	1.7	1.9	2.5	3.2	4.8
Squids, cuttlefishes	3.8	5.5	4.7	6.2	6.7
Whale meat	0.9	0.4	1.2	1.5	1.3
Others	4.2	3.9	3.6	2.6	2.4
Others	337.5	378.8	352.3	360.7	339.8
Canned 4)					
Total	448,415	425,771	399,275	361,044	355,736
(Actual number of thou. cases)	(41,838)	(41,398)	(40,044)		
Shellfish	12,521	10,528	12,183	10,718	10,404
Crabs	4,785	4,555	3,961	3,871	3,512
Jack mackerel	-	-	-	-	-
Mackerels	235,932	169,648	126,462	100,060	86,401
Prawns, shrimps	71	56	33	49	48
Salmons, trouts	8,284	9,487	6,694	7,183	8,854
Sardines, anchovies	67,575	92,276	108,626	89,527	95,589
Saury	7,306	10,290	9,554	10,210	8,622
Squids, cuttlefishes	4,041	3,955	3,308	3,063	3,101
Tunas, skipjack	94,520	111,042	113,071	125,469	129,820
Whale	7,833	8,261	10,037	5,461	5,426
Others	5,548	5,673	5,346	5,433	3,959

Notes : 1) Excluding dried seaweeds.

2) Baked products of kneaded fish meat with seasonings.

3) Steamed products of kneaded fish meat with seasonings.

4) Surveyed by the Canners Association of Japan.

Ⅲ－5 VALUE OF IMPORTS AND EXPORTS

Imports

Year	Total	Live	Fresh and frozen			Salted dried and smoked
			Shrimps	Skipjack, tunas and marlins	Others	
1974	323,240	19,862	117,571	21,684	90,242	42,059
1975	384,529	24,862	137,517	39,527	107,412	35,166
1976	563,649	30,680	223,128	46,206	150,745	58,279
1977	657,714	32,437	219,509	68,205	191,668	63,167
1978	676,455	32,132	222,528	46,963	238,577	78,434
1979	930,764	29,126	313,168	69,552	331,739	111,625
1980	764,319	32,023	248,866	59,158	267,176	59,969
1981	879,881	32,022	279,642	70,113	330,894	80,361
1982	1,046,745	27,442	341,217	85,589	410,399	87,873
1983	1,003,124	38,316	317,836	82,830	380,758	82,127
1984	1,050,220	39,199	318,525	90,296	418,084	73,117

Exports

Year	Total	Fresh and Frozen		Salted,dried and smoked		
		Skipjack, tunas and marlins	Others		Jack mackerel and mackerels	Salmons
1974	201,965	24,331	42,714	5,398	35,554	12,993
1975	168,696	3,289	38,357	5,783	35,732	15,102
1976	220,833	13,958	49,288	5,942	34,477	17,625
1977	184,180	12,906	37,389	5,877	44,423	3,723
1978	171,250	13,849	30,654	5,736	35,406	3,144
1979	196,363	10,957	35,175	6,723	35,442	139
1980	265,314	25,064	36,237	8,370	52,830	126
1981	253,830	12,791	34,234	9,897	43,740	1,343
1982	262,830	11,224	38,559	13,377	33,140	107
1983	265,807	10,014	45,431	10,586	20,899	51
1984	303,271	17,261	43,325	10,616	16,461	418

BY COMMODITY, 1974～1984

Unit: Million yen

Raw agar-agar	Fish meals	Pearls	Oil and fat	Prepared	Dried laver	Others
2,142	3,404	2,158	569	18,934	59	6,563
1,748	5,856	3,147	904	22,884	221	6,285
2,153	5,485	4,871	665	30,660	42	10,735
1,596	24,827	6,079	452	32,182	264	12,328
1,759	9,341	7,839	1,252	28,042	-	9,588
2,386	9,773	8,996	1,371	38,717	-	14,311
3,700	17,251	13,828	1,523	41,791	-	19,034
2,368	10,662	13,926	1,483	40,976	-	17,434
2,942	4,937	11,731	1,271	53,751	-	19,593
3,121	11,381	13,294	1,791	52,010	-	19,660
3,196	7,859	15,555	2,279	61,761	-	20,349

Unit: Million yen

Canned				Oil and fat		Pearls	Others
Sardines and anchovies	Tunas and Skipjack	Crabs	Others	Whale oil	Others		
834	29,119	644	5,627	3,930	11,268	17,484	12,069
1,343	27,664	454	3,646	1,959	5,481	17,679	12,207
7,536	35,932	890	4,367	1,447	7,696	22,920	19,355
8,227	25,626	581	3,784	1,412	12,059	10,296	17,877
7,951	25,007	62	3,654	522	17,665	8,818	18,782
10,164	26,536	25	3,233	-	15,910	32,090	19,969
13,179	35,461	59	3,450	-	13,809	51,392	25,337
21,168	31,989	70	2,832	-	13,873	54,285	27,608
26,145	29,287	157	3,043	-	13,028	51,746	43,017
16,385	26,292	295	2,931	-	17,934	68,200	46,789
16,752	28,883	400	2,311	-	25,942	82,923	57,979

Ⅲ－6 VALUE OF IMPORTS AND

Imports

Year	Total	U. S. A. 1	Republic of Korea 2	Taiwan 3	Canada 4	Indonesia 5	India 6
1974	323,240	16,326	62,763	28,746	14,167	24,504	17,391
1975	385,529	21,768	85,639	44,186	13,363	29,513	27,847
1976	563,649	28,441	115,752	54,625	27,547	48,431	40,984
1977	657,714	62,310	129,344	67,545	44,879	48,802	35,229
1978	676,455	104,710	100,497	66,459	53,974	47,024	36,340
1979	930,764	143,769	132,817	80,065	59,620	60,345	55,978
1980	764,319	98,963	116,568	79,868	29,214	54,101	44,436
1981	879,881	147,228	133,037	84,206	41,081	49,409	54,439
1982	1,046,745	176,678	153,770	94,883	62,784	62,469	71,520
1983	1,003,124	155,921	145,792	111,117	45,134	57,818	62,046
1984	1,050,220	162,374	159,990	119,166	51,849	55,967	60,349

Exports

Year	Total	U. S. A. 1	Netherlands 2	Nigeria 3	Taiwan 4	Hong Kong 5	Papua New Guinea 6
1974	201,965	62,373	14,400	1,176	5,841	4,378	3,157
1975	168,696	38,142	9,935	3,851	8,363	5,290	2,697
1976	220,833	57,042	11,972	4,718	11,969	7,403	4,623
1977	184,180	39,447	14,171	11,117	9,500	7,636	4,709
1978	171,250	33,574	18,813	14,785	11,266	7,833	6,368
1979	196,363	36,122	15,076	12,158	11,723	10,539	4,693
1980	265,314	54,175	12,126	16,287	9,862	17,559	5,789
1981	253,830	49,136	11,149	21,997	10,381	15,290	7,747
1982	262,830	60,938	7,621	17,483	19,327	19,003	5,853
1983	265,807	81,258	11,405	6,682	16,325	19,478	5,371
1984	303,271	101,626	16,472	242	21,206	20,536	5,593

EXPORTS BY COUNTRY, 1974～1984

Unit: Million yen

China	Spain	Australia	Thailand	Hong Kong	Mexico	U. S. S. R.	Malaysia	Others
29,020	17,872	11,179	12,901	7,069	7,075	10,307	5,827	58,093
22,651	19,655	11,235	20,934	8,743	7,891	8,383	6,236	57,385
24,750	27,844	21,160	28,846	15,257	13,516	10,947	15,122	90,427
19,962	19,754	25,496	23,733	18,981	10,213	14,662	15,647	121,157
32,489	24,701	24,328	24,305	16,530	14,877	13,978	11,537	104,706
43,252	43,260	41,503	38,447	19,116	12,642	16,241	18,864	164,845
49,433	38,410	28,391	29,034	14,710	8,955	15,946	10,488	145,802
48,999	32,100	42,057	35,912	15,679	8,254	16,789	11,857	158,834
41,505	28,324	46,188	45,945	15,643	12,805	18,932	12,693	202,606
40,657	26,636	41,990	39,725	13,308	10,970	18,356	15,780	217,874
45,356	32,184	41,893	38,414	14,635	6,401	24,611	11,176	225,855

Unit: Million yen

Canada	United Kingdom	Australia	Singapore	Saudi Arabia	Philippines	S. Africa	Switzerland	Others
7,151	10,983	8,383	3,618	1,406	8,316	3,091	4,729	57,764
6,843	12,354	5,227	5,428	1,713	7,770	2,881	4,668	48,939
8,831	14,877	8,747	3,798	2,287	8,300	4,097	6,204	59,030
6,033	4,850	5,862	4,763	4,491	5,891	3,989	3,864	62,150
5,766	5,056	3,985	3,920	3,300	3,179	2,979	2,583	47,843
6,968	6,235	3,924	3,519	3,273	3,789	2,867	8,265	67,112
7,184	7,389	4,856	5,606	7,032	6,165	5,759	12,747	92,778
5,290	8,597	6,080	4,479	6,239	6,429	7,786	9,941	83,289
5,799	7,335	5,555	6,383	6,845	7,850	4,897	9,488	78,453
7,579	8,116	5,217	5,469	5,508	1,279	7,122	12,036	72,962
9,129	8,936	5,832	5,247	4,925	146	6,977	11,702	84,702

Ⅲ－7 VALUE OF IMPORTS AND EXPORTS (by Country, and by Commodity)

Imports

Country of origin	Total	Live	Shrimps	Squids & cuttlefish	Octopuses	Fresh and Skipjack, tunas and marlins
Total	1,050,220	39,199	318,525	57,118	49,730	90,296
U.S.A.	162,374	421	255	49	1	2,817
Republic of Korea	159,990	2,269	4,614	11,530	4,803	36,497
Taiwan	119,166	29,160	30,225	675	-	27,156
India	60,349	-	58,536	988	-	-
Indonesia	55,967	2	49,206	1	1	2,600
Canada	51,849	434	437	-	-	396
China	45,356	3,036	19,365	146	1	-
Australia	41,893	1,267	28,410	-	-	2,791
Thailand	38,414	204	13,072	8,697	926	19
Spain	32,184	-	-	5,222	22,257	2,838
Other	282,678	2,406	114,405	29,810	21,741	15,182

Exports

Country of destination	Total	Fresh and frozen products	Salted dried and smoked	Mackerels	Salmons
Total	303,271	60,586	10,616	16,461	418
U.S.A	101,626	20,871	2,552	69	7
Taiwan	21,206	836	3,446	-	9
Hong Kong	20,536	704	3,429	49	0
Notherland	16,472	620	27	17	200
West Germany	14,509	1,622	18	2	-
Switzerland	11,702	5	3	-	-
Canada	9,129	1,112	100	28	6
United Kingdom	8,936	59	41	18	103
Republic of South Africa	6,977	1,392	12	14	-
France	6,053	3,790	27	3	39
Other	86,125	29,575	961	16,261	54

OF FISHERY PRODUCTS, 1984

Unit: Million yen

frozen			Salted dried and smoked	Raw agar-agar	Fish meals	Pearls	Oil and fat	Prepared	Others
Salmons & trouts	Crabs	Others							
83,416	23,063	204,757	73,117	1,338	7,859	15,555	2,279	61,761	22,206
73,220	9,524	45,504	24,212	63	3,487	349	338	350	1,784
862	2,834	60,109	9,450	523	-	8	13	14,118	12,360
-	187	5,808	400	146	-	-	32	25,259	118
-	0	308	1	-	-	150	-	359	6
-	-	32	1,852	-	-	1,455	50	12	756
6,621	5,597	17,982	11,931	-	2	5	-	444	-
-	2,708	5,075	3,653	-	-	6,636	-	3,876	860
-	2	2,934	31	-	-	4,015	-	2,389	54
-	1	4,211	6,477	-	-	147	-	4,611	49
-	-	1,214	5	4	-	0	425	77	142
2,713	2,210	54,006	15,105	176	4,370	2,790	1,421	10,266	6,077

Unit: Million yen

Canned products				Oil and fat	Pearls	Others
Sardines and anchovies	Tunas and skipjacks	Crab	Others			
16,752	28,883	400	2,311	25,942	82,923	57,979
1,117	7,469	265	1,369	57	43,355	24,495
-	15	-	27	322	24	16,527
319	107	8	94	4	8,237	7,585
128	119	-	-	14,741	302	318
0	339	-	-	4,872	7,324	332
17	1,731	-	-	4	9,824	118
39	4,093	-	557	17	2,041	1,136
1,045	3,832	-	8	548	1,597	1,685
1,658	2,483	-	29	796	484	100
48	245	54	-	61	1,665	144
12,381	8,450	73	227	4,520	8,070	5,539

Ⅲ－8 FOOD BALANCE SHEET ON

Description	1980	1981	1982	1983	1984
(FISH AND SHELLFISH) (Live weight base)	10,425	10,671	10,753	11,256	11,903
Domestic production					
For domestic consumption	10,734	11,121	11,264	11,796	12,072
Fresh and frozen	3,009	2,928	2,812	3,194	3,458
Dried, salted and smoked	2,393	2,379	2,434	2,495	2,358
Kneaded	1,870	1,939	1,928	1,975	1,935
Fish sausage	120	127	132	135	132
Canned	274	304	337	362	368
Feeds	3,068	3,444	3,621	3,635	3,821
For exports	1,023	1,019	1,264	927	1,268
Fresh and frozen	202	158	140	156	194
Canned	603	494	450	349	370
Others for food use	12	15	27	42	60
Feeds	206	352	647	380	644
Change in stock	357	128	Δ 248	532	598
For food use	Δ 35	10	126	133	223
For feeds	392	118	Δ 374	399	375
Imports	1,689	1,597	1,527	1,999	2,035
For food use	1,027	1,200	1,320	1,550	1,746
For feeds	662	397	207	449	289
Domestic supply	12,768	12,665	12,487	13,704	14,227
For food use	9,110	8,751	8,593	9,290	9,387
Domestic production	7,421	7,154	7,066	7,291	7,352
Imports	1,689	1,597	1,527	1,999	2,035
For feeds	3,666	3,914	3,894	4,414	4,840
Domestic production	3,004	3,517	3,687	3,965	4,551
Imports	662	397	207	449	289

FISHERY PRODUCTS, 1980～1984

Unit: Thousand metric tons

Description	1980	1981	1982	1983	1984
(WHALE)					
Domestic production	19	20	20	21	16
For domestic consumption	19	20	20	21	16
For exports	0	0	0	0	0
Imports	25	19	20	19	17
Domestic supply	44	39	40	40	33
For food use	44	39	40	40	33
For feeds	-	-	-	-	-
(SEAWEED) (dried weight base)					
Domestic production	139	130	127	142	152
For domestic consumption	133	125	121	137	146
For exports	6	5	6	5	6
Imports	55	51	53	56	58
Domestic supply	188	176	174	193	204
For food use	157	150	143	158	169
For feeds	31	26	31	35	35
Per capita food supply (unit : kgs)					
Fish and shellfishes	65.5	65.1	64.4	65.6	68.6
Whales	0.4	0.3	0.3	0.3	0.3
Seaweeds	1.3	1.3	1.2	1.3	1.4
Population (Unit: Million persons) 1).....	117	118	119	119	120

Note: 1) Data are based on the surveys undertaken as of October 1st of the year.

Ⅲ－9 AVERAGE CONSUMPTION IN QUANTITY OF FISHERY

(1) ALL households (Cities With population of 50,000 and over)

Unit: gram

Item	1980	1981	1982	1983	1984
Fresh fish & shellfish					
Cod, Alaska pollack	774	706	661	648	647
Flounders, halibuts	2,754	2,856	2,828	2,510	2,430
Jack mackerel	2,122	1,836	2,585	2,630	2,231
Mackerels	2,806	2,678	1,808	1,693	1,760
Salmons, trouts	1,056	1,046	984	1,213	1,217
Sardines	2,285	2,233	2,453	2,513	2,630
Saury	2,177	1,763	1,549	2,445	2,598
Sea breams	1,013	968	994	997	956
Shrimp, prawn, crab	3,855	3,782	3,348	3,210	3,337
Skipjack	1,159	1,004	1,212	1,216	1,437
Squids, cuttlefishes	7,522	6,991	5,837	5,922	5,678
Tunas, marlins	3,540	3,513	3,331	3,370	3,024
Yellowtail	2,433	2,184	2,186	2,411	2,126
Shellfishes	5,400	5,709	6,075	5,588	5,509
Processed fishery products					
Boiled and dried sardine	687	639	700	654	1,708
Canned (can)	14.08	14.75	16.54	17.65	17.78
Dried "nora"	797	883	924	821	...
Dried"Kombu"and"Wakame" kelp	2,622	2,518	2,609	2,658	2,648
Dried squids	185	163	157	159	149
Fish sausage	1,866	1,614	1,510	1,543	1,479
Kneaded	...	...	...	...	...
Salted salmons and trouts ..	3,716	3,769	3,765	4,059	3,873
Whale meat	513	549	541	406	400
Beef	9,639	9,891	10,288	10,214	10,537
Pork	21,357	20,195	20,147	19,322	19,381
Chicken	14,440	14,179	14,747	14,380	14,619
Ham, Sausage	8,666	8,741	8,695	8,505	8,332
Milk, eggs	...	...	...	...	...
Oil,fats & condiments	404	371	331	...	...
Expense for eating out	...	...	...	...	...
Number of family members ...	3.78	3.75	3.73	3.70	3.68

PRODUCTS PER HOUSEHOLD, 1980～1984

(2) Farm household

Unit: gram

Item	1980	1981	1982	1983	1984
Fishery products					
Fresh and frozen					
Cod, Alaska pollack	2,540	2,390	...	...	...
Flounders, halibuts	2,960	3,080	...	...	...
Jack mackerel	2,060	2,050	2,650	2,640	2,140
Mackerels	9,430	7,620	5,900	5,150	4,930
Salmons, trouts	...	...	...	...	...
Sardines	6,050	5,570	5,080	4,640	4,620
Saury	4,160	3,200	2,600	3,960	4,240
Sea breams	940	910	1,000	1,150	970
Shellfishes	4,730	5,440	...	...	...
Shrimp	2,590	2,590	1,610	1,640	1,620
Skipjack	3,850	3,140	3,280	2,680	3,200
Squids, cuttlefishes	8,660	7,850	7,800	6,890	6,660
Tunas, marlins	4,240	4,180	4,630	4,520	3,830
Yellowtail	3,080	2,880	3,380	3,480	3,080
Processed fishery products					
Boiled and dried	2,670	2,830	...	...	...
Canned	3,850	3,730	...	...	...
Dried "nori"	...	...	...	...	...
Dried"Kombu"and"Wakame" Kelp	2,500	2,600	...	...	...
Dried squids	750	730	...	...	...
Fish sausage	1,540	1,400	...	...	...
Kneaded	10,700	10,080	12,820	9,640	...
Salted salmons and trouts	4,320	4,040	4,900	5,150	4,480
Beef	5,020	5,450	7,590	7,720	6,450
Pork	16,220	16,250	15,970	15,870	16,240
Chicken	13,130	12,940	13,420	13,240	13,670
Ham, sausage	7,310	7,630	7,910	6,520	7,010
Milk, eggs	...	...	...	...	...
Oil, fats & condiments	1,080	1,000	...	...	...
Expense for dining out	...	...	...	...	...
Number of family members	4.40	4.40	4.37	4.37	4.36

Ⅲ—10 AVERAGE CONSUMPTION IN VALUE OF FISHERY

(1) ALL households (Cities With population of 50,000 and over)

Unit: yen

Item	1980	1981	1982	1983	1984
Net income	4,196,232	4,445,244	4,758,864	4,899,456	5,146,356
Food expense	886,159	913,609	946,102	954,353	969,377
Fishery products	121,558	124,092	130,983	129,108	127,773
Fresh and frozen	72,278	72,566	76,174	74,254	73,596
Cod, Alaska pollack	572	526	494	489	483
Flounders, halibuts	3,398	3,574	3,706	3,459	3,416
Jack mackerel	2,667	2,583	3,294	3,117	2,856
Mackerels	1,371	1,405	1,053	969	999
Salmons, trouts	1,586	1,661	1,668	1,828	1,868
Sardines, anchovies	931	937	1,076	1,141	1,156
Saury	1,518	1,546	1,737	2,020	1,936
Sea breams	2,289	2,213	2,391	2,391	2,357
Shrimp, prawn, crab	8,959	9,073	8,502	8,294	8,648
Skipjack	1,895	1,756	2,122	2,018	2,155
Squids, cuttlefishes	7,268	6,799	6,815	6,844	6,468
Tunas, marlins	9,308	9,274	9,547	8,903	8,303
Yellowtail	5,358	5,146	5,154	5,314	4,741
Shellfishes	5,684	6,014	6,594	6,359	6,316
Processed fishery products ..	49,280	51,526	54,809	54,854	54,177
Boiled and dried anchovies .	907	869	1,013	989	2,544
Canned	2,812	3,099	3,471	3,506	3,532
Dried "nori"	5,797	5,677	5,392	5,201	5,458
Dried"Kombu"and"Wakame"kelp	2,763	2,803	2,943	3,072	3,003
Dried squids	632	576	596	620	573
Fish sausage	1,286	1,141	1,059	1,068	1,025
Kneaded	11,254	12,122	12,239	12,366	12,989
Salted salmons and trouts .	7,406	7,651	7,922	7,721	7,487
Whale meat	833	895	914	761	767
Beef	30,116	31,017	32,704	32,507	33,368
Pork	29,596	29,944	30,444	29,854	29,762
Chicken	14,405	14,831	15,311	14,778	14,979
Ham, Sausage	14,385	14,871	15,128	15,210	14,957
Milk, eggs	44,895	45,859	44,815	43,606	52,236
Seasonings	...	...	...	...	39,209
Expense for dining out	134,092	130,358	139,710	144,666	147,631
Number of family members ...	3.78	3.75	3.73	3.70	3.68

PRODUCTS PER HOUSEHOLD, 1980～1984

(2) Farm household

Unit: yen

Item	1980	1981	1982	1983	1984
Net income	4,515,200	4,772,500	4,964,700	5,121,800	5,360,800
Food expense	903,500	939,900	958,700	987,200	1,008,100
Fishery products	125,700	13,000	142,900	141,200	144,300
Fresh and frozen	79,200	82,100	86,300	84,900	87,800
Cod, Alaska pollack	1,836	1,861	1,760	1,695	1,837
Flounders, halibuts	3,465	3,631	3,549	3,235	3,496
Jack mackerel	2,308	2,559	3,123	3,050	2,915
Mackerels	3,751	3,774	3,464	3,118	3,234
Salmons, trouts	...	...	...	...	...
Sardines, ...	1,772	1,816	1,955	1,844	1,807
Saury	2,444	2,251	2,452	2,948	2,919
Sea breams	2,186	2,236	2,442	2,573	2,811
Shellfishes	3,101	3,699	3,927	3,766	4,033
Shrimp, ...	5,651	6,002	5,867	6,009	6,556
Skipjack	3,830	3,691	4,200	3,404	3,711
Squids, cuttlefishes	8,867	8,313	8,289	8,036	8,200
Tunas, marlins	10,818	11,300	11,907	11,787	10,865
Yellowtail	6,188	6,145	6,550	6,565	6,952
Processed fishery products..	56,023	57,187	66,438	66,427	66,844
Boiled and dried anchovies .	3,522	3,819	4,489	4,326	4,071
Canned	2,694	2,746	3,141	3,021	3,095
Dried "nori"	5,602	5,432	5,646	5,353	5,826
Dried"Kombu"and"Wakame"kelp	3,880	3,932	4,248	4,788	4,528
Dried squids	2,479	2,341	2,259	1,946	1,957
Fish sausage	1,007	975	1,332	1,376	1,322
Kneaded	10,689	10,939	11,754	11,769	11,875
Salted salmons and trouts.	7,438	7,465	8,498	8,666	8,469
Beef	14,947	16,634	18,148	18,711	19,734
Pork	22,328	22,719	23,162	23,155	23,601
Chicken	13,233	13,565	14,282	14,203	14,647
Ham ,Sausage	10,729	10,830	10,431	...	10,958
Milk, eggs	38,304	38,310	38,247	38,673	38,953
Seasonings	46,922	48,588	49,100	48,374	49,318
Expense for dining out.....	73,172	76,726	79,728	87,685	95,166
Number of family members ..	4.40	4.40	4.37	4.37	4.36

Ⅳ ECONOMY OF FISHERY ESTABLISHMENTS

Ⅳ－1 NATIONAL AVERAGE OF FISHERIES HOUSEHOLD ECONOMY, 1980～1984

Item	Unit	1980	1981	1982	1983	1984
Number of family members	Person	4.3	4.1	4.1	4.0	4.0
Number of non-powered fishing boats used	Boat	0.3	0.3	0.3	0.4	0.4
Number of powered fishing boats used.	"	1.0	1.1	1.1	1.1	1.1
Tonnage of powered fishing boats used.	Ton	2.7	2.7	2.8	2.8	2.9
Number of fishing days	Day	148	145	146	144	150
Number of workers on the sea	Person	474	456	466	465	489
Working hours on the sea	Hours	2,502	2,391	2,464	2,377	2,460
Catches	kg	9,605	9,105	9,322	9,246	10,216
Price of fish cought	Yen/kg	480	-	-	-	-
Fishery earning	1000 yen	4,695.6	4,468.0	4,820.8	4,670.5	4,781.7
Non-fishery earning	"	413.8	408.5	436.9	472.9	492.6
Non-business earning	"	2,030.8	2,269.0	2,504.3	2,538.4	2,356.5
Fishery expenditure	"	2,258.7	2,282.4	2,538.5	2,464.4	2,489.5
Employees wages	"	396.1	361.9	397.8	360.3	371.7
Maintenance of fishing boats	"	162.5	161.3	170.2	184.5	176.6
Expenditure for fishing gears	"	179.8	178.4	191.1	178.0	169.8
Oil	"	471.9	493.6	569.8	511.1	506.2
Miscellaneous facilities	"	20.1	13.3	17.1	15.9	15.4
Depreciation	"	508.2	552.5	619.4	653.5	687.6
Non-fishery business expenditure	"	197.7	199.1	207.7	238.9	244.7
Non-business expenditure	"	120.2	147.4	152.2	179.3	173.6
Household expenditure	"	3,114.8	3,262.4	3,341.5	3,426.1	3,525.0
Taxes, public charges and obligation.	"	467.3	520.5	566.2	630.6	666.2
Income of fishery household	"	4,563.6	4,516.6	4,863.6	4,799.2	4,723.0
Business income	"	2,653.0	2,395.0	2,511.5	2,440.1	2,540.1
Fishery income	"	2,436.9	2,185.6	2,282.3	2,206.1	2,292.2
Non-fishery income	"	216.1	209.4	229.2	234.0	247.9
Non-business income	"	1,910.6	2,121.6	2,352.1	2,359.1	2,182.9
Surplus of fishery household economy.	"	981.5	733.7	955.9	742.5	535.8
Property						
Fixed assets	"	7,921.3	8,240.3	9,020.0	9,501.9	9,785.9
Land	"	886.4	894.0	1,141.5	1,248.4	1,308.6
Building	"	3,862.3	3,962.0	4,274.9	4,591.6	4,818.7
Hull of fishing boats	"	1,067.7	1,139.6	1,218.4	1,157.2	11,089.8
Engines of fishing boats	"	1,103.9	1,195.6	1,240.2	1,294.1	11,291.9
Fishing nets and long lines	"	271.3	286.9	302.6	296.1	323.3
Non-fixed assets	"	6,979.8	7,504.6	7,947.0	9,682.0	10,297.9
Debts	"	1,914.1	2,092.0	2,364.8	2,459.1	2,443.1

Ⅳ－2 NATIONAL AVERAGE OF SMALL AND MIDDLE SIZE FISHERY ENTERPRISE ECONOMY, 1980～1984

Item 1), 2)	Unit	1980	1981	1982	1983	1984
Gross tonnage of fishing boats used	Ton	93.61	88.21	90.19	88.15	89.23
Number of workers on the boat	Person	13.9	12.9	12.8	12.6	12.3
Earnings from fishery	1000 yen	134,152	131,323	143,826	140,604	133,261
Fishery expenditures	"	135,914	132,856	142,304	139,689	133,063
Employees wages	"	47,396	46,506	49,561	48,993	47,271
Maintenance of fishing boats ..	"	8,822	8,427	8,710	8,927	8,203
Expenditure for fishing gears .	"	4,671	4,428	4,741	4,556	4,596
Oil	"	28,159	28,732	31,287	29,878	26,048
Bait	"	3,850	3,583	3,729	4,295	4,023
Ice	"	1,419	1,320	1,448	1,447	1,569
Fish container	"	2,070	1,789	1,839	1,702	1,597
Miscellaneous materials	"	1,428	1,433	1,510	1,494	1,505
Miscellaneous facilities	"	254	214	252	220	333
Rents and charge	"	2,850	2,607	2,984	3,474	3,298
Brokerage	"	5,861	5,605	6,138	5,820	5,584
Costs for business	"	6,372	6,439	6,383	6,312	6,643
Tax upon fishery business	"	915	733	827	838	821
Other	"	6,893	6,338	6,944	6,960	6,728
Depreciation	"	14,954	14,703	15,949	14,772	14,842
Estimated family wages	"	1,457	1,477	1,662	1,660	1,634
Fishery profit 3)	"	Δ 3,219	Δ 3,010	Δ 140	Δ 745	Δ 1,436
Assets (final)	"	161,269	159,480	168,613	176,025	179,139
Fixed assets	"	91,909	88,998	93,836	93,723	93,102
Fixed assets for fishery	"	62,137	61,064	63,275	61,969	61,091
Non-fixed assets	"	69,360	70,482	74,778	82,301	86,037
Liabilities (final)	"	149,979	153,986	162,684	174,138	178,857
Net worth	"	11,290	5,494	5,930	1,888	282
Net profit	"	Δ 2,189	Δ 2,504	563	Δ 1,389	Δ 519
Interest on liabilities	"	7,604	7,948	8,155	8,413	8,874
Sales profit 4)	%	Δ 2.4	Δ 2.3	Δ 0.1	Δ 0.5	Δ 1.1
Costs for physical expenditure ...	1000 yen	70,990	69,723	74,860	72,794	68,203
Added value	"	63,162	61,600	68,966	67,810	65,058
Added value per worker	"	4,512	4,775	5,388	5,382	5,289
Wage per worker	"	3,410	3,605	3,872	3,888	3,843
Capital equipment ratio 5)	"	5,109	5,524	5,623	5,873	6,248
Ratio of net worth out of total capital	%	7.0	5.9	4.1	2.8	1.7
Ratio of profit out of total capital	"	Δ 1.4	Δ 1.6	0.3	Δ 0.8	Δ 0.3

Notes: 1) Small and middle size fishery enterprise refers to the enterprise engaging in fishery with fishing boats of 10 gross tonnage and over but excluding the bit enterprises with capital paid of 100 million yen and over.
2) Data show an average per fishery enterprise.
3) Fishery profit = Earnings from fishery - fishery expenditures - estimated family wages.
4) Sales profit = Fishery profit ÷ earnings from fishery x 100.
5) Capital equipment ratio means fixed assets for fishery per worker engaged normally in fisheries.

REFERENCE TABLES

1 CATCH BY COUNTRY OF THE WORLD, 1979~1983

Unit: Thousand metric tons

Country	1979	1980	1981	1982	1983
Total	74,248	75,357	77,838	79,546	79,739
Japan	10,589	11,124	11,323	11,408	11,964
U.S.S.R.	9,069	9,496	9,565	9,973	9,772
China	5,561	5,825	5,764	6,309	6,701
U.S.A.	3,671	3,797	3,816	4,067	4,147
Peru	3,715	2,735	2,741	3,484	1,487
Norway	2,768	2,536	2,700	2,650	2,959
India	2,340	2,442	2,440	2,335	2,520
Republic of Korea	2,421	2,408	2,810	2,641	2,792
Thailand	1,948	1,794	1,989	2,120	2,250
Denmark	1,738	2,028	1,852	1,927	1,862
Chile	2,697	2,891	3,495	3,846	4,168
Indonesia	1,748	1,850	1,911	2,007	2,120
Korea D.P.R.P.	1,330	1,400	1,500	1,550	1,600
Iceland	1,661	1,525	1,450	802	855
Philippin	1,581	1,672	1,773	1,897	1,969
Canada	1,450	1,375	1,447	1,428	1,362
Spain	1,212	1,271	1,261	1,379	1,254
Viet Nam	600	613	622	640	710
Brazil	855	820	829	829	845
France	780	832	810	787	832
Mexico	1,003	1,257	1,565	1,356	1,100
Bangladesh	646	650	687	725	729
South Africa	669	626	610	627	613
Poland	601	640	630	608	735
Malaysia	696	736	804	683	741
UK England and Wales	494	398	350	321	269
Burma	565	585	595	584	586
Argentina	583	400	375	488	416
Nigeria	535	480	496	512	515
UK Scotland	383	422	499	556	546
Ecuador	609	667	687	637	307

2 CATCH BY SPECIES OF THE WORLD, 1979～1983

Unit: Thousand metric tons

	1979	1980	1981	1982	1983
Total	74,248	75,357	77,838	79,546	79,739
Carps, barbels and other cyprinids	611	632	713	740	766
Tilapias and other cichlids.....	337	373	412	417	444
Miscellaneous freshwater fishes...	4,949	5,198	5,488	5,629	5,954
Sturgeons, padolefishes, etc.	29	29	29	29	29
River eels	85	94	81	84	83
Salmons, trouts, smelts, etc.	762	805	873	812	920
Shads, milkfishes, etc.	770	774	854	947	916
Miscellaneous diadromous fishes ..	366	366	465	536	556
Flounders, halibuts, soles, etc. .	1,149	1,084	1,090	1,136	1,153
Cods, hakes, haddocks, etc.	10,602	10,740	10,630	10,955	11,185
Redfishes, bases, congers, etc. ..	5,310	5,315	5,275	5,371	5,055
Jacks, mullets, sauries, etc.	7,861	7,331	8,028	7,795	7,929
Herrings, sardines, anchovies etc.	15,167	15,549	16,745	17,922	17,395
Tunas bonitos, billfishes, etc. .	2,440	2,590	2,603	2,712	2,756
Mackerels,sneks,cutlassfishes,etc.	4,953	4,623	4,396	3,837	3,725
Sharks, rays, chimaeras, etc.	599	615	629	635	651
Miscellaneous marine fishes	7,104	7,563	8,098	7,995	7,974
Freshwater crustaceans	91	98	95	111	107
Sea-spiders, crabs, etc.	784	793	757	797	812
Lobsters, spiny-rock lobsters,etc.	157	152	157	160	177
Squat-lobsters, nephrops, etc. ...	77	56	70	62	18
Shrimps, prawns, etc.	1,570	1,650	1,629	1,691	1,778
Krill,plankonic crustaceans,etc. .	334	479	448	529	230
Miscellaneous marine crustaceans..	70	67	77	82	77
Freshwater molluses	255	272	254	283	301
Abalones, winkles, conchs, etc. ..	77	86	89	100	92
Oysters	873	972	957	961	1,019
Mussels	608	620	662	751	746
Scallops, pectens, etc.	410	370	573	525	525
Clams, cockles, arkshells, etc. ..	1,110	1,228	1,315	1,272	1,307
Squids,cuttlefishes,octopuses,etc.	1,506	1,526	1,366	1,629	1,630
Miscellaneous marine molluscs	105	118	122	121	134
Porpoises, dolphins, etc.	3	4	2	1	1
Miscellaneous aquatic mammals	1	1	1	1	2
Frogs and other amphibians	1	1	1	1	2
Turtles and other reptiles	8	6	6	6	5
Sea-squirts and other tunicates ..	4	5	5	4	4
Horseshoe crabs and other arachnoids	0	0	0	0	0
Sea-urchins, sea-cucumbers, etc....	66	56	59	66	67
Miscellaneous aquatic invertebrates	81	22	61	137	225
Pearls,mother-of-pearl,shells,etc.	7	7	5	5	5
Corals	0	0	0	0	0
Sponges	0	0	0	0	0
Aquatic bird guano, eggs, etc. ...	36	30	27	18	16
Brown seaweeds	2,357	2,470	2,182	2,217	2,298
Red seaweeds	737	789	799	792	823
Green seaweeds and other algae ...	3	9	4	9	14
Miscellaneous aquatic plants	90	80	76	64	70

APPENDIX

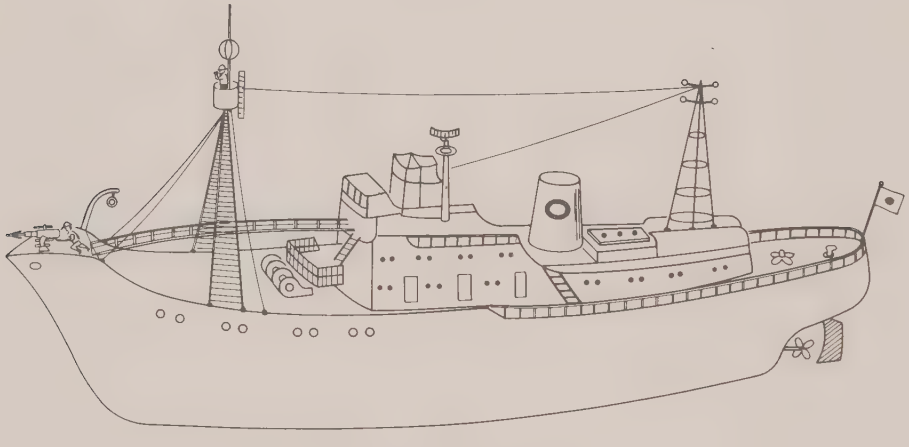
ILLUSTRATION OF TYPES OF FISHERIES

1. Mother Ship Type Whaling

Catcher boat

Mother ship

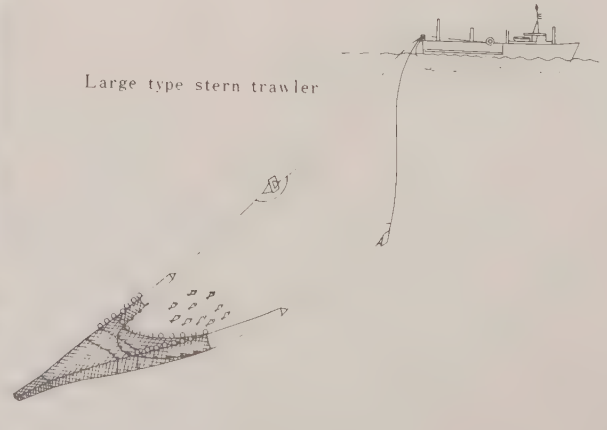
Catcher boat



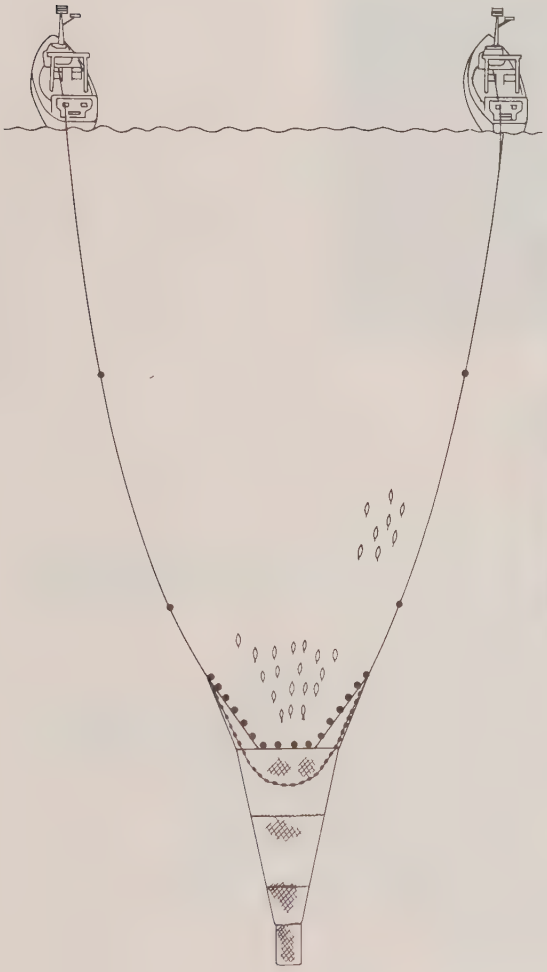
2. Distant Water Trawl

1500 Tonnage type stern trawler

Large type stern trawler



3. Large Trawl in East China Sea

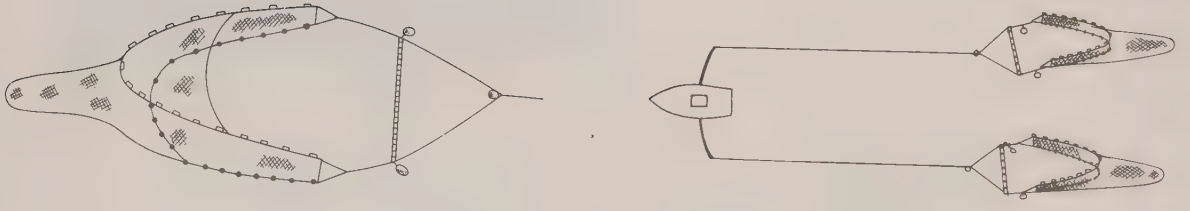


4. Medium Trawl

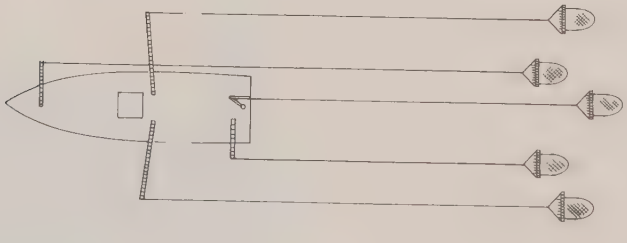
124 Tonnage type stern trawler

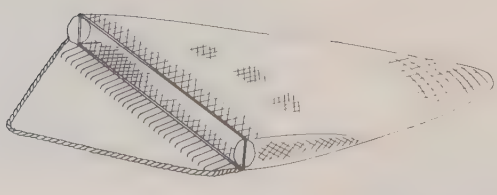
5. Small Trawl

Small trawler for shrimps

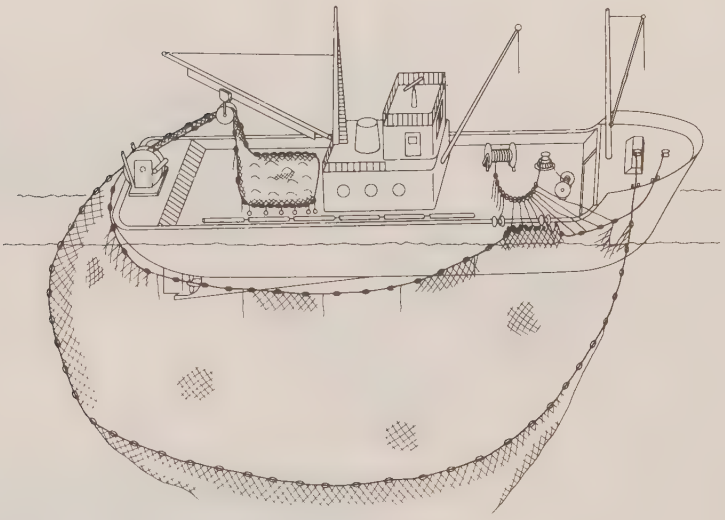


6. Small Trawl With Drag Nets for Scalop

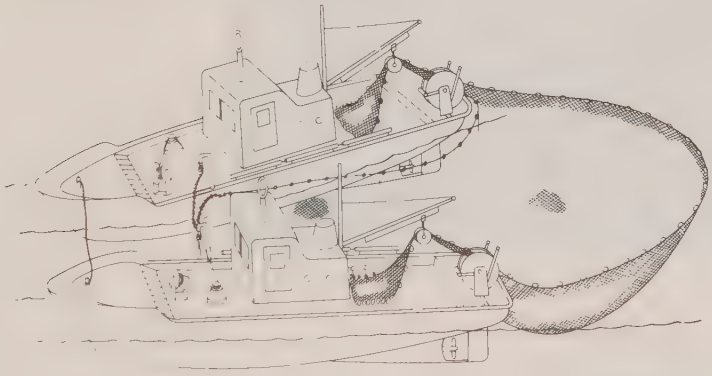




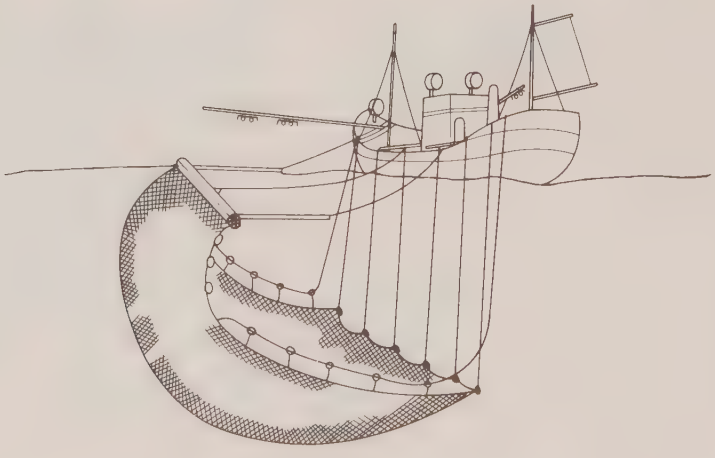
7. Purse Seine (One Boat Operation)



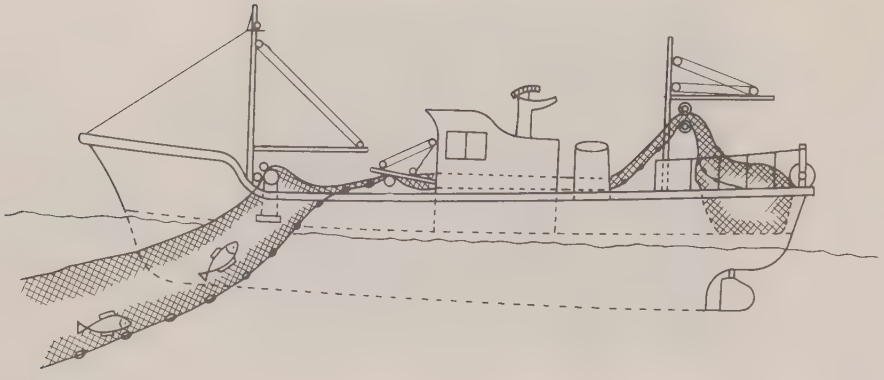
8. Purse Seine (Two Boats Operation)

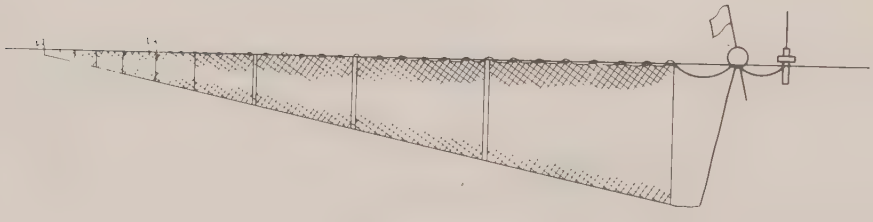


9. Saury Stick-Held-Dip Net

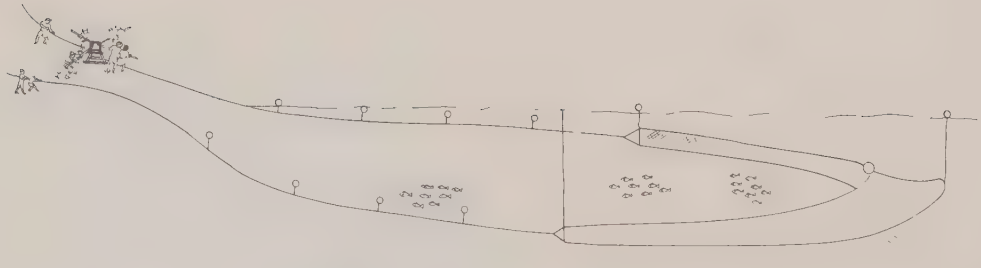


10. Salmon Drift Gill Net

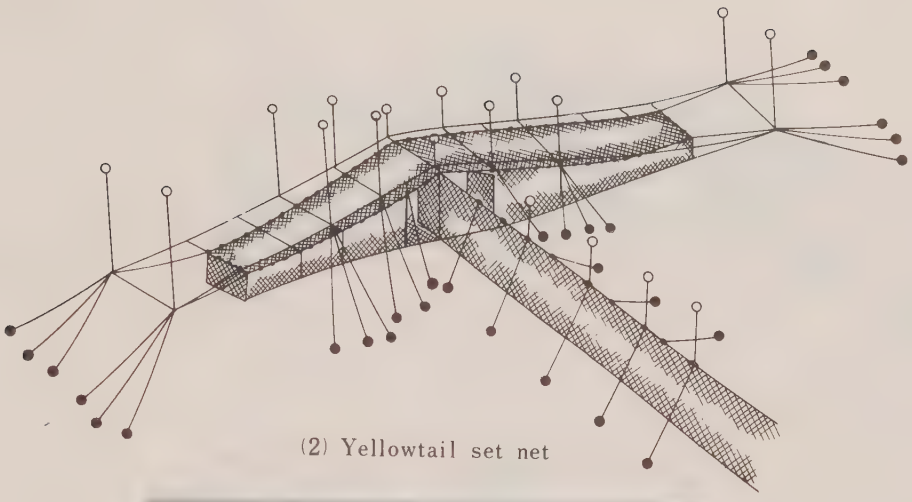




11. Beach Seine

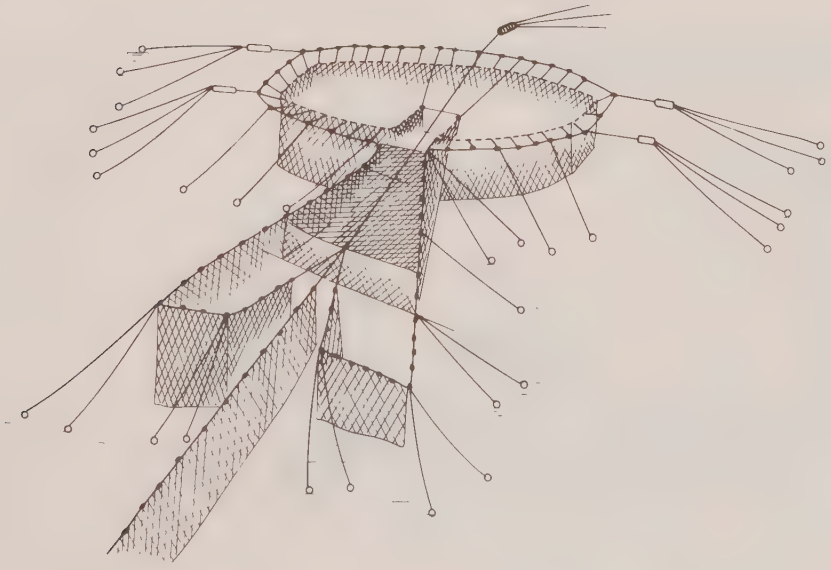


(1) Salmon set net

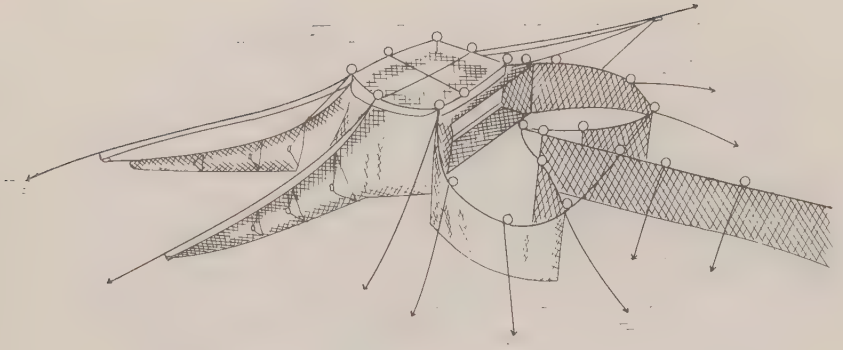


(2) Yellowtail set net

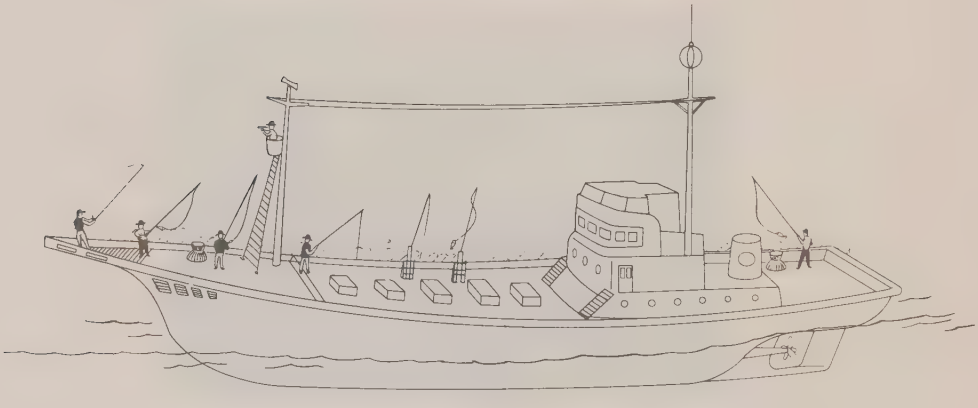
(3) Sardine set net



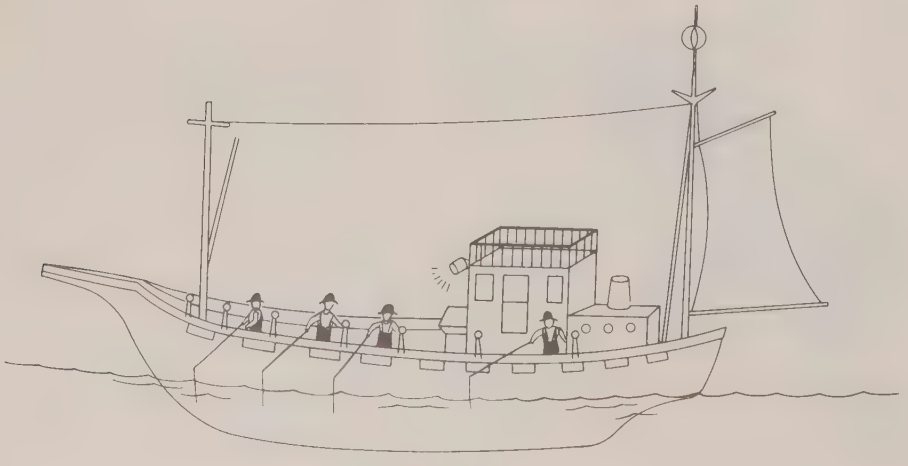
12. Small Set Net



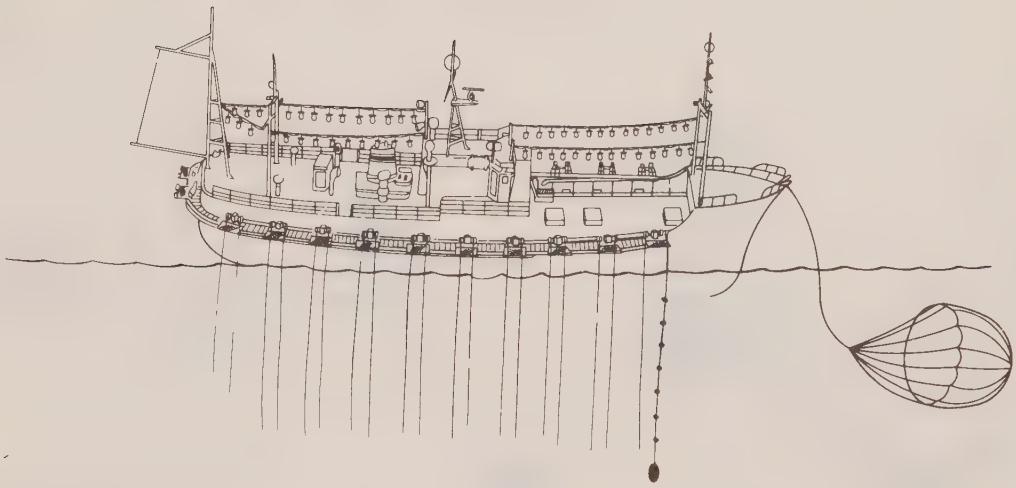
13. Skipjack Pole-and-Line



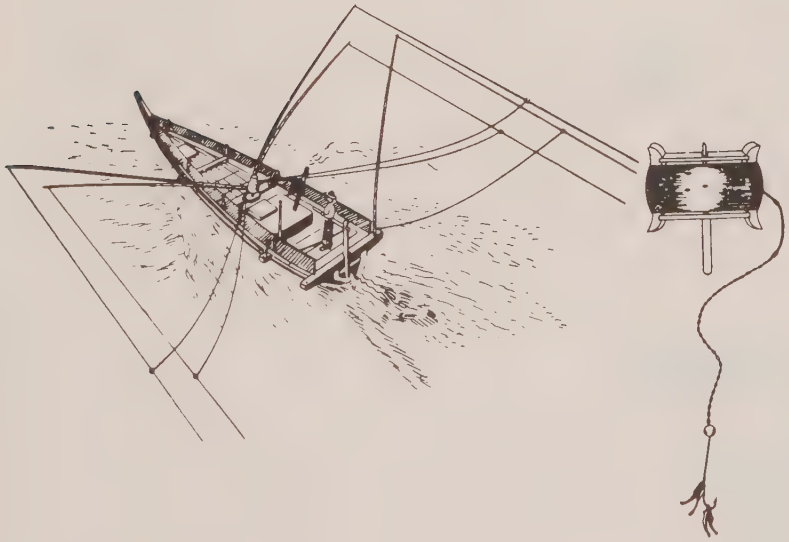
14. Mackerel Pole-and-Line



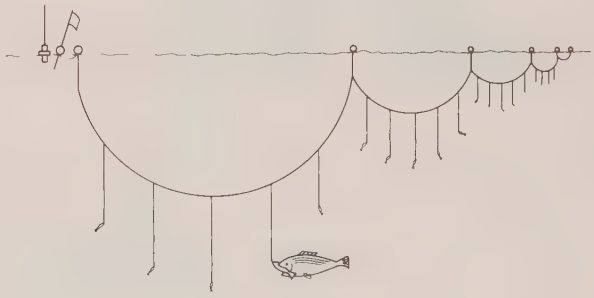
15. Squid Angling



16. Other Angling (Trolling)

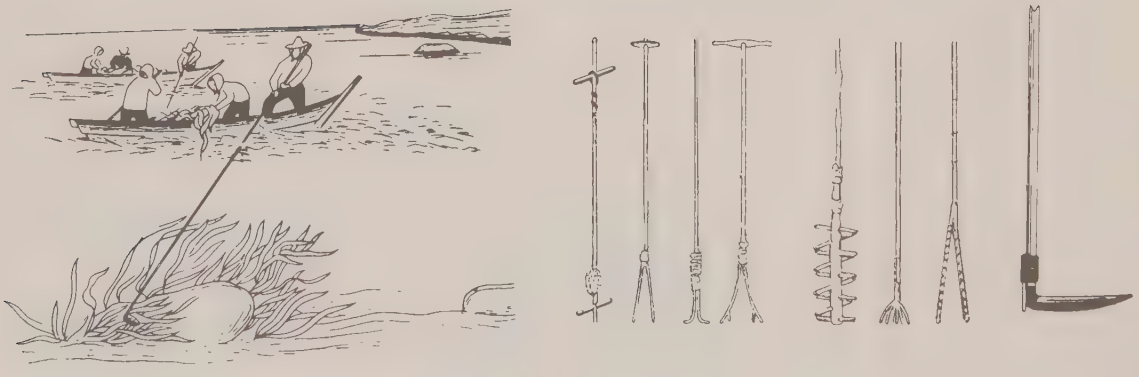


17. Tuna Long Line



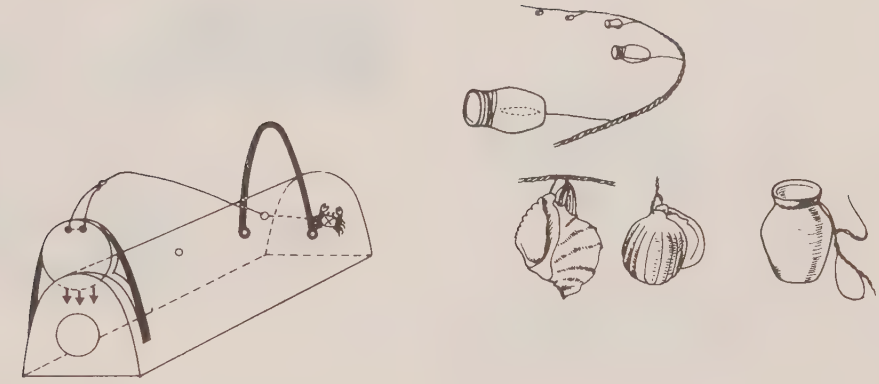
18. Shellfish Collecting

19. Seaweed Collecting

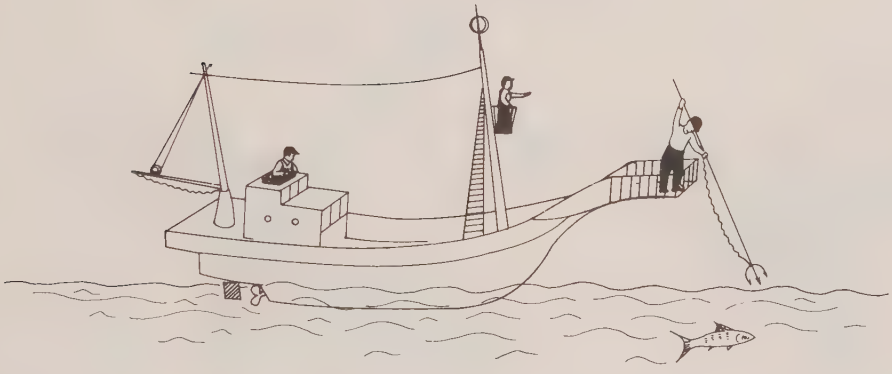


20. Other Fisheries

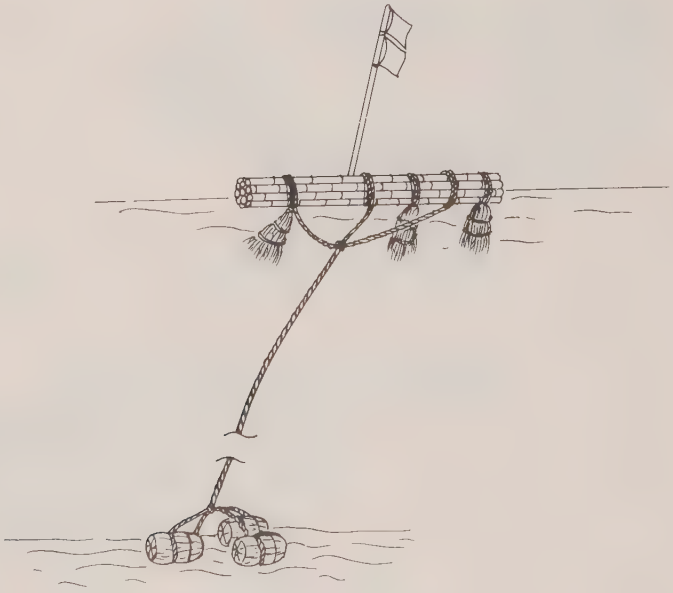
(1) Traps for octopus



(2) Dart

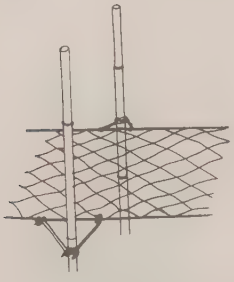


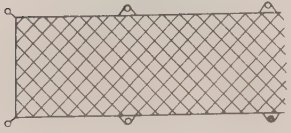
(3) "Tuke" luring fishery



21. "Nori" Laver Culture

"Nori" laver culture by stakes



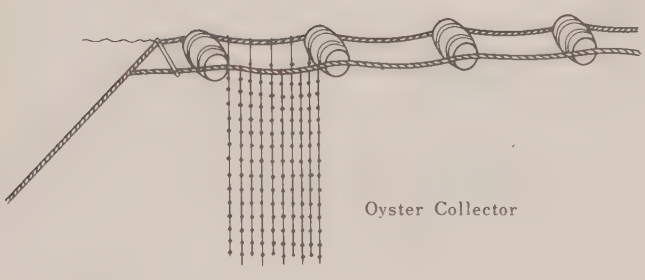


Spore collector with bamboo screen

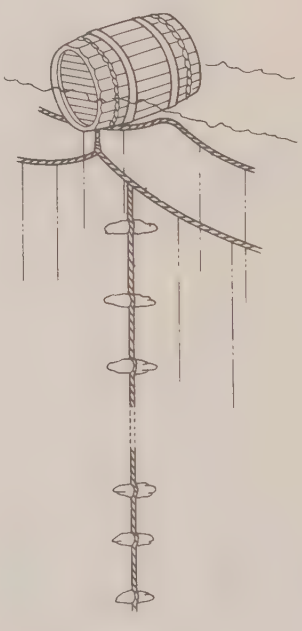
"Nori" larver culture by floating nets

22. Oyster Culture

Long line type

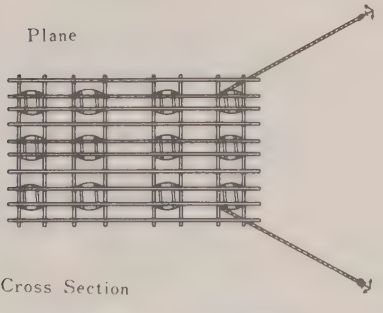


Oyster Collector

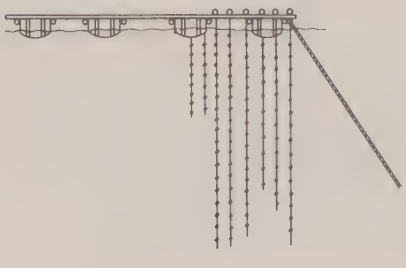


Raft hanging type

Plane

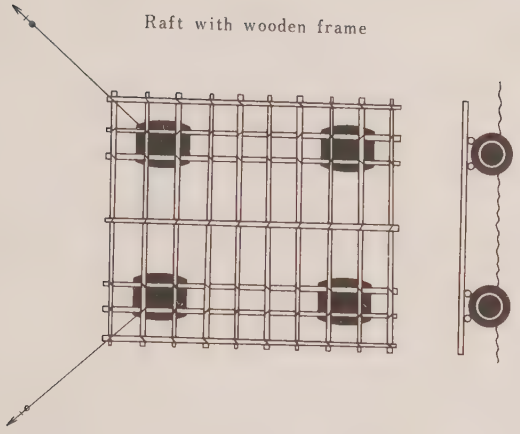


Cross Section

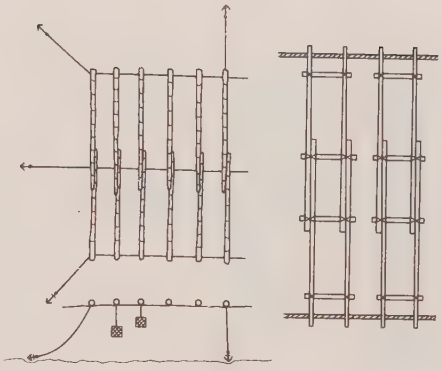


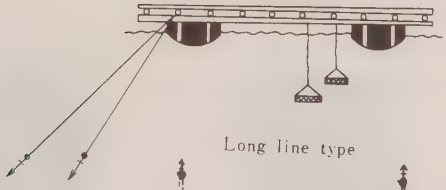
23. Pearl Culture

Raft with wooden frame

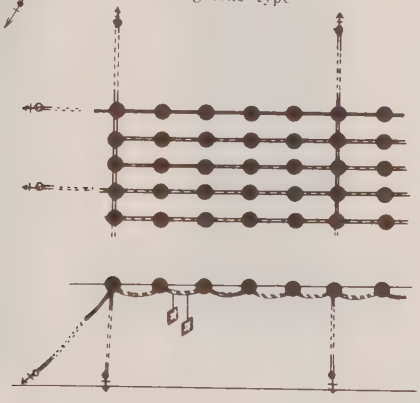


Wooden raft

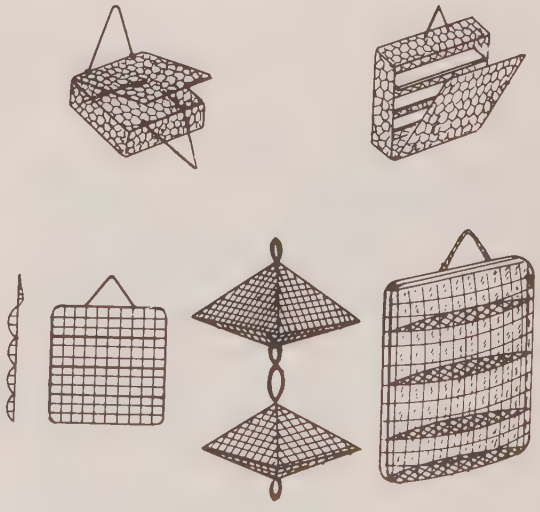




Long line type

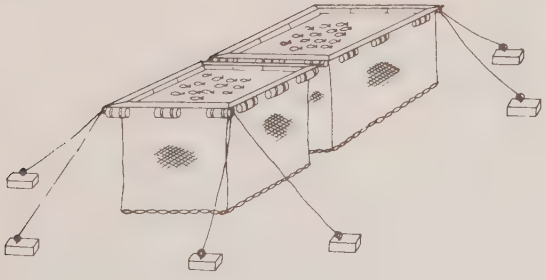


Types of baskets



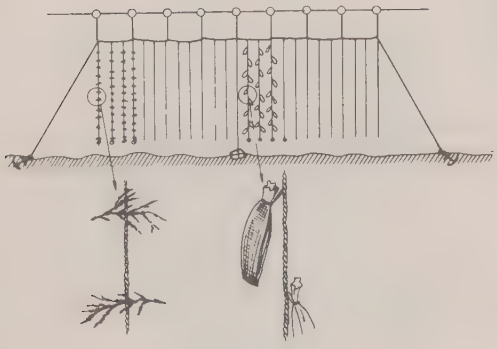
24. Yellowtail Culture

Net cage type

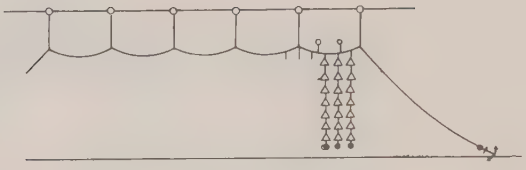


25. Scalop Culture

Seed collector

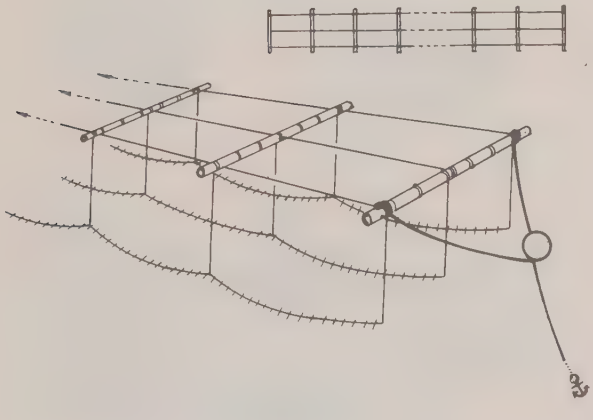


Long line type

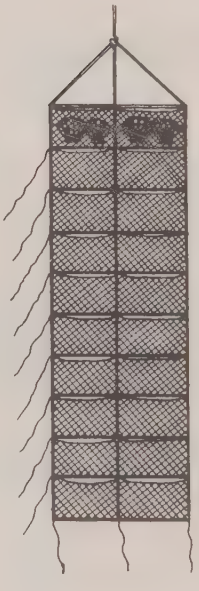


26. "Wakame" Seaweed Culture

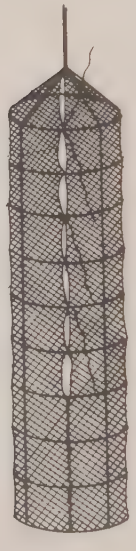
Raft type



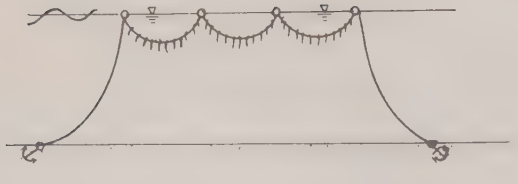
Pocket net type



Basket type



Long line type



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